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THE THIRTY-EIGHTH YEARBOOK

OF THE
NATIONAL SOCIETY FOR THE STUDY
OF EDUCATION

PART II GENERAL EDUCATION IN THE AMERICAN COLLEGE

Prepared by the Society's Committee

ALVIN C. EURICH (Chairman), KARL W. BIGELOW, A. J. BRUMBAUGH,
B. LAMAR JOHNSON, GORDON N. MACKENZIE, MALCOLM S. MACLEAN,
S. RALPH POWERS, and HENRY M. WRISTON

Assisted by Members of the Society and Others

Edited by

GUY MONTROSE WHIPPLE

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EDITOR'S PREFACE

This volume is an example of speedy decision and rapid development. It was in October of 1937 that Professor Alvin C. Eurich, then of Northwestern University, now of Stanford University, first suggested, in a letter to the Secretary, the idea of a yearbook on "General Education in the American College," and it was only in February of 1938, at the Atlantic City meeting of the Board, that his tentative outline could be taken up for discussion.

The Directors were impressed by the timeliness of the topic and by Professor Eurich's conviction that he could supply material for 350 to 400 pages for publication in 1939. They thereupon appointed him as chairman of a provisional committee to include Karl Bigelow (American Council of Education), A. J. Brumbaugh (University of Chicago), B. L. Johnson (Stephens College), Malcolm MacLean (University of Minnesota), S. R. Powers (Columbia University), and H. M. Wriston (Brown University), with the thought that this committee could assist in developing the tentative outline so as to incorporate in it suggestions brought out in its discussion by the Board, and then, if substantial accord were reached, become, with such additions as seemed wise, the official "Committee of the Society on General Education in the American College." The gentlemen just named carried out this program. Professor G. N. Mackenzie (University of Wisconsin) was later added to the Committee and there were selected the associate contributors listed elsewhere in the front matter of this Yearbook.

At the same meeting of the Board an appropriation of \$1,200 was voted for meetings, correspondence, and other Committee expenses germane to the undertaking.

To assemble this Committee, to determine the plan and lay-out of the volume, to select the contributors, to get each chapter written, to secure the criticism and suggestions of each member to each contribution, to rewrite the manuscripts, to edit them for the printer, to arrange for each contributor to read the proof of his contribution and for chairman and editor to read all this galley proof and page proof as well, to have the volume composed, printed, bound, and ready for distribution—all within 330 days constitutes, I think, a piece of production in which every person concerned, and in particular the energetic chairman, may take justifiable pride. When the superior intrinsic

merit of the Yearbook is kept in mind, it all goes to show that high speed and high quality of performance need not be mutually exclusive.

As to this matter of the intrinsic merit of the Yearbook, the editor feels that no further comment is needed than to say that the theme of the Yearbook concerns a situation that goes to the heart of the problem of the subject matter, instructional methods, and spirit of education in our higher institutions of learning. There may be some colleges and universities that have not yet been confronted with the problem in the form under discussion here, but they certainly will be confronted with it ere long, if for no other reason than that of needing to know how their sister institutions are progressing as they are. This Yearbook ought to be read by every college administrator in the United States.

A final word: it will be noted that the Committee's presentation of the problem of general education in the college has necessitated frequent reference to educational conditions in the secondary school antecedent to the student's entrance to college. The Directors naturally raised the questions whether the secondary-school situation was not worth a yearbook of itself and whether such a yearbook should not be prepared prior to that on the college. The considered opinion of Professor Eurich was 'yes' to the first question and 'no' to the second. Consequently, though not prepared as yet to announce a companion yearbook on the secondary school, the Board of Directors of the Society is at least receptive to the idea.

G. M. W.

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SECTION I

THE GROWING CONCERN WITH GENERAL EDUCATION

▪

CHAPTER I

A RENEWED EMPHASIS UPON GENERAL EDUCATION

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I. THE TREND TOWARD GENERAL EDUCATION

'General education' is a term that symbolizes a current groundswell in American colleges and universities. The words themselves are not new. They have appeared frequently in the history of education, so much so, that the casual observer is likely to comment that he sees no reason why there should be so much concern over the concept at the present time. Have not the schools always been concerned with general education? To be sure, the common schools were established for this purpose. In an early period, the three R's formed the major part of a curriculum of general education. Instruction intended to develop character and training for citizenship were later brought within its scope. Still later, emphasis upon activities—learning to do by doing—came as a result of an effort to make general education more effective. At present the scope of general education appears to be all-pervasive, including the development of the whole personality in relation to society. Thus, through the years, new meanings have evolved.

But, in spite of this practical interest in the general aspects of education, high schools and colleges came to assume other functions that, particularly throughout the first thirty years of the present century, held a position of primary importance. High schools, by and large, came to prepare for college, supplementing their programs from time to time with some vocational training. The junior colleges, after they were established, conceived their major function to be that of preparation for the upper division of colleges and universities or of professional schools, largely drawing their patterns of instruction after the first two

years of the liberal-arts colleges. Colleges, in turn, planned courses that prepared for further university and graduate work. And the graduate schools produced the scholars.

An educational hierarchy of the type just described seemed, for a time, quite adequate. The tenor of American life was bent toward further specialization. Colleges and universities merely reflected the trend of society at large. Students came in increasing numbers; they likewise dropped out in larger numbers, either because they failed or because the colleges failed to provide educational facilities of the type that interested them. The colleges were not always aware of or greatly concerned about the high mortality rate. On the contrary, some were proud of it. Such wholesale elimination seemed an expression of high standards that enhanced the value of higher education. Even in a democracy, experiences that can be had only by a chosen few are more highly appraised—the smaller the number, the more rigid the selection; the more severe the elimination, the greater the worth of the experiences. Outside the college, the high mortality rate went almost unnoticed. As students dropped out before completing their courses, industry and various commercial enterprises or agriculture readily absorbed them.

Then came a rather sudden shift in trends. Students leaving colleges could no longer find jobs. High-school graduates not planning to continue their education found themselves idle. Most of them could not think of attending college because they were unable to meet the expenses involved. The colleges themselves, threatened with decreasing enrollments and tottering resources, became somewhat disturbed. They made liberal provision for payment of tuition fees. Students coming from rural areas were permitted to bring corn or wheat and in some cases even pigs, chickens, and cows in payment of their fees. The National Youth Administration was organized and as part of its activities undertook to subsidize a large group of students by providing "made work." With these provisions students who in previous years would have had no special inclination to attend college found the doors to institutions of higher learning about the only portals leading to fruitful endeavor open to them. From 1929 to the present it became progressively easier for students to attend colleges and universities; at no time in American history has it been so easy to enroll as now. In some institutions at present it is possible for students to matriculate and continue in residence throughout the academic year with no more than fifty dollars in cash.

But the ease with which students came and the difficulties in finding employment outside college were ample causes for concern. Institutions soon began to search for new programs that were better adapted to the group enrolled primarily because of current social circumstances. A few colleges, chiefly for women, such as Bennington, Sarah Lawrence, and Stephens, had already been experimenting to find new patterns of education. They were privately controlled, expensive to attend, and therefore highly selective. With a growing consciousness of a youth problem in America, however, the public institutions felt pressures for other forms of education aside from the strictly preprofessional, cultural, or professional. And they responded.

In the fall of 1932 the University of Minnesota opened a new "Junior College." Soon it was evident that the name was unfortunate because of the confusion that resulted. The lower division of the College of Science, Literature, and the Arts had been called a junior college; there were other junior colleges in the state. The new "Junior College" was of a different stripe. It was in no sense a preprofessional school, although admission to it did not preclude entrance to a professional school later. Its emphasis, however, was upon an education for all high-school graduates regardless of whether they continued in school for only a term, or a year, or completed their university course. Within a year after the college opened, the name was changed to "General College." From the records, this appears to be the first use of the term to designate a college, although there was a ferment for general education. The University of Chicago, as is well known, was at the same time putting into operation its new plan; but this was to provide for a group of students who were more rigidly selected from the standpoint of academic ability than those entering Minnesota's General College.

The Institute for Administrative Officers of Higher Institutions, held at the University of Chicago in the summer of 1934, was called to consider "A New Definition of General Education." In the Preface to the published Proceedings of this Institute, Gray states that "this topic was chosen as a result of suggestions received from more than a hundred officers of higher institutions concerning problems and trends which merit intensive study and critical discussion at this time."¹ The new definition was not formulated, and the title of the Proceedings was changed to *General Education: Its Nature, Scope, and Essential Elements*.

¹ Gray, W. S. (Editor) *General Education: Its Nature, Scope, and Essential Elements*. University of Chicago Press: Chicago, 1934.

During the intervening years the interest in general education has multiplied many fold. "General colleges" may now be found in every section of the country from coast to coast. Colleges not changing their names have increasingly given publicity to programs of general education.

Many questions arise concerning this trend, the chief of which is: What is general education? Each person who uses the term has some definite connotation in mind. Commonly it is thought of in contrast with specialization and as implying an emphasis upon living in a democratic society. Although the desirability of this emphasis is widely agreed upon, the different interpretations have led to considerable confusion as to the means or methods of implementation.

President Hutchins' two books, *No Friendly Voice* and *The Higher Learning in America*, stirred up a controversy concerning the nature of general education that apparently will not soon abate in either professional or popular magazines. Lancelot Hogben in *The Retreat from Reason*, John Dewey, and others in articles and books sharpened the issue with expressions of a contrasting point of view. Hutchins insists upon a form of general education at the college level that has its roots in the intellectual tradition expressed through the great books of the Western World, from Homer to the present day. He wants students to acquire a knowledge of grammar, rhetoric and logic, the discipline of the medieval scholars, in order to be adept at reading such books. Thereby they will, he believes, develop their intellects and powers of reasoning. Dewey, on the other hand, stresses the need for experience with present-day personal and social problems, the experimental method, as the one ultimate alternative in providing a general education for students. He declares that students learn as they live with their experiences. They learn how to solve problems by dealing directly with them. Not special training for tomorrow but experience in dealing with the problems of today is the best education for the years ahead.

The bibliography of the writings of others who have joined in this controversy now extends over pages. As a result, varying concepts of general education have been expressed ranging through the whole gamut from dependence upon the study of "first principles" or upon abstractions that reside *outside* the student to an education that grows out of and centers fundamentally *within* the student—an education conceived primarily in terms of his basic personal needs in relation to society.

Fundamentally, however, there is a common concern that underlies all efforts to stress general education in the upper secondary and higher

levels regardless of the different emphases. It is a concern that grows out of (1) a dissatisfaction with higher education as now organized, (2) a reaction against an overemphasis upon specialization in the colleges, (3) a new body of information regarding the nature of a college and the characteristics of the student body, (4) the current youth problem in society, and (5) a deepened desire to do something that will make education more effective than it has been in the past, largely, perhaps, in the hope that future generations will be able to solve better such social problems as those that baffle present-day society.

Along with this common concern there is, likewise, a common purpose. Every program of general education designed to date stresses the *need for integration*. The word has, perhaps, through endless repetition and overuse, lost some of its forcefulness. Nevertheless, the constant emphasis upon it signalized a *quest* for some sort of *unity* now lacking in educational matters. The quest is expressed in various ways. Some would achieve unity by having all students study basic areas of subject matter in order to give them a common ground for understanding each other. Some think of unity as it is represented in great books that have stood the test of time and the attacks of critics. Some keep searching for first principles, great truths, that hold at all times and in all places; if we could only discover these, they argue, unity could readily be arrived at through a study of them. Some would center general education about the student's individual and personal problems, his adjustments and maladjustments; for, they say, integration is not really achieved unless it takes place within the student. Some think of integration as growing out of a study and an understanding of basic needs of the individual, such as food, shelter, clothing, sex or reproduction, and all the activities in which he must engage in order to satisfy these needs. Some are firmly convinced that the quest for unity can be satisfied only through an emphasis upon the relationship of the individual to society; upon the activities in which he engages, such as observation and communication, in order to contribute to, and be fully a part of, a social group. To be sure, these points of unity are not mutually exclusive. They represent centers of interest. They reveal contrasting positions as well as the dominant quest.

The different concepts regarding the ways by which integration or unity can be achieved also reflect clearly the different methods used in developing general education curricula. The usual scheme for building college curricula is to permit each faculty member to add courses in

terms of his desires and special interests. Nothing but confusion can possibly result. General education, quite in contrast, suggests that some system be followed in developing courses, in order to achieve the desired unifying effect. Certain institutions have depended upon authorities. The administrator, the student of curricula, a faculty committee, or some 'expert' outside the college has designated the areas to be studied by all students in order that they might acquire a common understanding. This is the most usual method. It was used in setting up the first curriculum of Minnesota's General College. It is used by most liberal-arts colleges and universities. A variation of the authoritarian method involves an inquiry into the intellectual traditions; the common elements of all times and cultures that, when found, form the basis of the curriculum. President Hutchins would have colleges follow this method. Another method was followed by Professor Coffin, of Whittier College. He went directly to the students and asked six outstanding junior and senior men to make a cooperative study of the following questions: What educational values would be of most worth to a young man as a basis for a complete and successful life? The implication of the method was that if a college could discover the questions that concern students most, an educational program designed to assist them in answering these queries could become the core of general education.

To assist Stephens College in developing a general-education curriculum for women, Charters some years ago made an extensive analysis of the activities of college women graduates. Others have developed curricula based on studies of alumni opinion and still others on investigations of basic social needs.

As can readily be assumed, the results from the different approaches varied widely. The aims of general education as stated in broad abstract concepts are readily accepted. To illustrate, the General College at the University of Minnesota is now building its curriculum around four areas of human need: (1) vocational orientation, (2) home-family relationships, (3) socio-civic relationships, and (4) personal philosophy, or standard of values. The University of Chicago, on the other hand, has organized the work in the College in subject-matter categories: (1) physical science, (2) biological science, (3) social science, (4) humanities, (5) English composition. Actually, the General College at Minnesota would readily admit that students enrolled learn subject matter in the areas named at Chicago. Likewise, Chicago's College would not only admit but even readily claim that students while registered there develop so that they can meet more effectively the life

needs specified at Minnesota. There is no disagreement with the general statements of aims. The disagreement arises in actual practices at the two institutions and in the *assumptions* underlying those practices.

Despite the differences, however, there is a common desire, in the majority of plans, for general education at the upper secondary and college levels, to relate educational experiences more directly to the needs of human beings who are members of contemporary society, to contribute to the growth of individuals so that they will be more effective in meeting their real day-by-day problems—the more social as well as the more personal, the prospective as well as the more immediate—and to develop the desire and capacity for continuous self-education.

II. IMPLICATIONS OF THE TREND²

The widespread concern for general education involves a conception of man, of society, and of the learning process that needs further clarification.

1. The Conception of Man and of Society

Developing as it has in the United States, this common concern can readily be interpreted as implying a general education to develop further the democratic way of life, the import of which may be made clear by the following three propositions:³

² This section of the chapter is adapted from an unpublished report of the following committee of professors in Teachers College: Karl W. Bigelow, Professor of Education (Social Science); Helen Judy-Bond, Professor of Household Arts; Lennox B. Grey, Associate Professor of English; James L. Mursell, Associate Professor of Education (Psychology of the Arts); and Samuel Ralph Powers, Professor of Natural Sciences, who served as Chairman.

³ Democracy is sometimes thought of merely as a political system through which the members of a community choose their own rulers and can replace them with others by electoral means, if they so choose, after an appointed term of office. But democracy consists in a good deal more than an electoral system. Its effectiveness depends upon the extent to which the people have the knowledge, the social feelings, and the power of judgment necessary for them to rule themselves. A society may be more or less effectively democratic, and we can talk of a democratic ideal that is to be approached through people becoming better equipped to assume responsibility as their own rulers. But for most people the approach towards the ideal of political democracy depends also upon the development of intelligent social coöperation, together with the feelings of loyalty, respect, and consideration for others upon which this coöperation depends. Thus, the democratic ideal is a social as well as a political ideal. It is from this more fundamental point of view that what follows in the text is written.

1. *Each individual, while in constant and essential relationship to the society in which he lives, has a unique value.* This means that he possesses many potentialities, each capable of development without assignable limit and in the direction of contributing to the social good. It means that his well-being, and his complete and well-rounded development, are to be regarded as the primary concern of society. And it means that he should be encouraged to exercise intelligence and, insofar as is feasible in the interests of the group, to reach decisions in freedom from all compulsions and restraints save those arising from his sensitive appreciation of the needs and purposes of the democratic society of which he is a part. General education should seek to cultivate such potentialities, to promote such developments, and to encourage such self-reliance.

2. *The entire range of the behavior of an individual involves interaction with other personalities.* His ways of thinking, feeling, and acting are seldom achieved and carried on in isolation from the social medium. Most of them, moreover, affect his relation to others, and are seldom merely private to himself. This relation imposes upon him an obligation to think and to act always with reference to the personalities that constitute society. It implies also that general education should seek unceasingly to promote social sensitivity and social competence.

3. *Social well-being and desirable modes of social action are to be achieved through common understandings (including understanding of the part played by differences of interest and opinion) as the basis of intelligent and willing coöperation.* Hence it is important that the individual be led to direct his attention to personal problems, to problems involved in his relation with others, and to problems of common social concern.

Certain factors in the current social scene give special point to these propositions. Young people of today will, in the course of their lives, be exposed to a vastly wider range of contacts, human and otherwise, than were men and women of earlier generations; and they will be affected by social changes at least as rapid and widespread as those that have marked recent decades. It follows that, although certain social trends may be discerned, the detailed problems such persons will meet in their later lives in a heterogeneous and dynamic society cannot all be anticipated. It also follows that general education must seek to equip young people to adjust themselves effectively and without confusion to change and variety. This is possible only through the agency of intelligence,

which, broadly understood, involves emotional orientation as well as reflective thinking, brought into contact with the issues, problems, and potentialities of life. Materials for general education should be selected with these ends in view.

2. The Learning Process

This characterization of general education involves definite conceptions of the learning process that may be summed up under two heads.

1. *Effective learning results from the activities that are felt to be vital.* This has several important implications for general education. First, materials drawn from the accumulated knowledge and wisdom of the race will be most readily grasped and will make the greatest contribution to the growth of the student when they are related to his activities and to the needs from which these activities arise. Second, experiences should be provided for the student that will broaden and deepen his understanding of needs; i.e., in the interests of richness and many-sidedness, stimulating opportunities for the expression of potentialities of every desirable sort should be given, and an early sense of needs that will be fully felt only in the future should be wisely brought about. Third, the student should be encouraged to engage in responsible action; to choose, plan, and freely carry out tasks, to evaluate as well as to accept the consequences of his efforts, and to learn from his own failures and successes.

2. *The effective relating of the accumulated knowledge and wisdom of the race to the needs and activities of the student will frequently require the bringing together of instructional materials from several of the conventionally separated subject-matter fields.*

This is by no means to suggest that a sweeping abandonment of the customary organization of knowledge is required for fulfilling the purposes of general education. What it does mean is that the selection, arrangement, and utilization of materials should be carried out with constant regard for student backgrounds, student interests, and student needs—with constant attention to the fact that the development of the student is a part of the social process—and that customary barriers should be freely crossed when this is indicated by such considerations. The main point is that the student should be helped to grasp the relations of the cultural heritage to his own experiences and problems and to see how that heritage may be made to function in his own activities and the activities of his group.

3. Further Characterization of General Education

The positions taken in regard to the nature of man and of society, and of the learning process, lead to the belief that the results sought will accrue from a general education that, in addition to possessing the characteristics already referred to, is: (1) broad—concerning itself with the widest possible range of basic human activities, with due regard for their historical development and for their essential interrelation; (2) scholarly—guiding the student to the discovery of the best that is currently known and thought concerning the various problems to which his attention is turned; (3) dynamic—stressing the ways in which social changes and the discovery of new knowledge continuously invalidate established views and lead to new and more approximately correct conclusions; (4) democratic—accepting the inevitability of differences of opinion and employing the methods of discussion and persuasion in dealing with such differences; (5) systematic—constantly emphasizing the methods by which sound conclusions are reached and desired ends attained; and (6) generalized—developing in the student a real grasp of the most widely ramifying generalized insights—intellectual, ethical, and esthetic. Such insights, which grow out of the reflective consideration and comparison of experiences, are among the most valuable consequences of learning. They result from a comprehension of the relatedness of things that makes ever easier the interpretation of new experiences and the solution of new problems, and they themselves are the most flexible tools for such interpretation and such solution.

Yet another matter calls for special attention. While general education as thus envisaged is designed to be suitable for all normal students and to be broadly inclusive, yet it need not be either stereotyped or unrelated to special, even vocational, interests. Indeed, since it is fundamentally linked to needs, which must vary from person to person, it implies individualization of instruction within its broad framework. It may properly employ vocational interests as a means of motivating the learner, provided undue narrowness does not result; and it may teach special skills and techniques, provided this is done with such breadth of view as will contribute to the ends of general education. Its outcomes, moreover, should be as applicable to vocational as to other purposes; indeed, they are likely to be of more vocational value in the modern world than mere 'training' in the uncritical and unimaginative performance of specialized occupational habits.⁴

⁴ The aims and functions of general education deduced from this analysis of the problem are given in Chapter XV.

III. THE TASK OF THE YEARBOOK COMMITTEE

What, then, is general education in American colleges? Clearly, it is an expression of a quest for unity and a renewed emphasis upon the democratic ideal. Although it has this central core, it is not a specific program, nor is it a stereotyped or fixed procedure. It is not one thing, but many; all of which, however, have a common unifying effect. It is what one finds in American colleges that are seriously attempting to modify their programs in order to provide more unifying experiences with reference to a renewed faith in democracy. To discover what they are doing, why they are doing it, and what success they are having was the task of the Yearbook Committee. In carrying out this task, the Committee hoped to clarify the issues in regard to general education, to discover the unique features of the newly announced programs, to synthesize the results of studies on which current practices are based, to unearth some of the most perplexing problems facing colleges and universities that are attempting to improve their general education programs, to note the special techniques of evaluation that have been developed to appraise the new courses of study, and, finally, to present a clearer picture of the trends.

IV. GENERAL PLAN OF THE YEARBOOK

5 The first section of the Yearbook deals with the basis for the growing concern about general education. The director of the American Youth Commission presents the implications of the extensive studies, made through his office, that form a background against which the problems of youth in high schools and colleges must be considered. Youths as developing organisms is the theme of the next chapter, which summarizes significant studies of adolescents. The chapter on secondary education stresses particularly the variety of needs that must be met by the high schools and describes a number of experimental attempts to meet them. It emphasizes also the necessity of greater articulation with the colleges. Then follows a chapter on youth in the colleges in which is brought together the evidence that has accumulated in recent years revealing the wide differences among colleges and the implications of such diversity for general education. The last chapter in the section indicates clearly that youth is, and must be, a common concern of high schools and colleges. Neither level can ignore the problems of general education.

The second section presents college plans that in recent years have

emphasized the extension of general education. Early in its deliberations, the Committee decided to describe a few representative plans rather extensively instead of portraying all plans of general education that, of necessity, would mean an all-too-brief and inadequate account of each. The plans presented here are, therefore, illustrations of the various approaches that have been made to provide general education and to articulate the college curriculum with that of the high school. In studying each plan, the Committee sought information regarding (1) the conditioning circumstances out of which it grew, such as community served, type of student body, faculty, relations with external agencies, historical circumstances, and the like, (2) institutional objectives or assumptions underlying the new program, including some consideration of how these were determined, (3) the procedures employed, including consideration of how and why they were chosen, and (4) evidence of success or failure in achieving objectives. To be sure, the Committee did not succeed in getting full information on all these points. It followed the policy, however, of going directly to the institutions concerned and asking the member of the staff most closely connected with the program to provide the description.

The third section is concerned with instructional materials for general education that need to be developed in harmony with the broadened concept.

The final section presents a summary of the major trends that are revealed by the sources available to the Committee. An examination of the evidence leaves no doubt concerning a renewed emphasis upon general education. It cannot be ignored. It must be studied and appraised if the implications for the further development of higher education are to be fully recognized.

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CHAPTER II

SOCIAL FACTORS AFFECTING GENERAL EDUCATION

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I. INTRODUCTION

Numerous changes in American life—some of which have taken place slowly over a long period, some of which have come with great rapidity in recent years—are today by their cumulative effect precipitating a crisis in our educational system. It is the purpose of this chapter to provide an analysis of some of the more important of these forces affecting general education and to indicate the implications growing out of them for general education.

All social factors either directly or indirectly affect the problem of general education, since education is concerned with understanding the social patterns in which it operates. Clearly it will be impossible to make a comprehensive analysis of all the social factors that are influencing general education. The problem in American colleges, however, is especially affected by a combination of factors in contemporary life. It would seem more profitable to attempt to identify a few of the most important of these factors that have a direct bearing upon general education.

This paper has special reference to general education at the college level, but since general education is primarily a function of secondary education, it is necessary to deal also with the problem at the high-school and junior-college levels, and to consider certain interrelations.

Also, since general education is in one sense the antithesis of technical or professional education, it is necessary to take account of certain factors that are affecting technical and professional education.

II. THE SOCIAL FACTORS

1. Population and Immigration Changes

First, within the past century the population of the United States has changed rather fundamentally in several respects. It has changed,

for example, from a preponderantly rural population in 1840 to an urban population at the present time. Even as late as 1880, 71.4 percent of the population was rural; only 28.6 percent was urban. In 1930 the majority of the population—to be exact, 56.2 percent—lived in cities. The people of the United States are no longer engaged primarily in agricultural pursuits. Children, therefore, do not have opportunities of the kind that were common when families lived on farms. Urban society does not provide youth with the numerous opportunities farm youth had for social participation and for self-expression. Urban society is also much more limited in the recreational opportunities it affords. Congested urban life, poor housing, and other environmental conditions have contributed to a breakdown of standards of conduct and have led to an increase in crime. All these factors are placing an increasing responsibility upon the school to provide for youth those opportunities that existed under a simpler rural economy.

Second, there has been a marked change in the ratio of adults over 20 years of age to youth under 16. In 1850 for every 1,000 youth under 16 years of age there were only 889 adults beyond 20 years of age, but at present there are approximately 2,100 adults for every 1,000 youth. In other words, the ratio of employables to total population has greatly increased. It is not surprising, consequently, that it is unusually difficult, especially in periods of depression, for youth under 21 to find opportunities for employment.

Third, a significant modification in our population has resulted from a fundamental change a few years ago in our immigration policy. For generations American industry has depended to a great extent for its unskilled labor upon European immigrants. During the great expansion stage of American industry it was necessary to import large numbers of these low-paid laborers. This flow of immigrants is now checked and we are dependent upon our own population for the source of our labor supply.

Fourth, our democratic philosophy of education has committed us to the principle of providing to each American youth an education at public expense. It is true that this commitment has not been completely fulfilled. Yet at the present time for the country as a whole approximately 65 percent of the high-school population 14 to 17 years of age are enrolled in school. Conversely, this means that 35 percent of the high-school population are not enrolled in school. It is also significant that wide variation exists among the states with respect to the percentage of pupils of high-school age that is in school. These facts for a num-

ber of the states are worth noting. In Alabama, the percentage is approximately 28; Arkansas, 33.5; Mississippi, 35.7; South Carolina, 35.8; Illinois, 62.7; Ohio, 68.7; New York, 72.9; Massachusetts, 74.1; California, 85.8; Nevada, 86.3; Wyoming, 86.6; Washington, 90.8; and Utah, 95.6.¹

The increase in population of the secondary schools and colleges of this country is without parallel in the history of the world. In 1900 about 700,000 pupils were in our high schools. There are now more than 6,000,000. In 1900, 237,592 students were enrolled in institutions of higher education. The most recent figures issued by the United States Office of Education indicate that institutions of higher education enrolled a total of more than 1,200,000 resident students of above secondary grade during the regular session from September, 1935, to June, 1936, and more than 370,000 for the summer session of 1935.

2. The Enormous Expansion of the Fields of Knowledge in the Last Few Decades

The application of scientific study to the problems of modern life in recent years is producing an almost overwhelming body of knowledge in every area of life. A cursory survey of the development of the number of courses offered by universities and colleges over the last forty-year period will give some idea of the rate of this expansion. The organization and mastery of this steadily increasing amount of knowledge constitutes one of the most pressing problems of general education. Someone has computed the time that would be required for a student to take all of the courses offered in one of the large universities and has come to the amazing conclusion that more than a hundred years would be required for this purpose.

3. The Increasing Tempo of Social Change

Perhaps one of the most characteristic features of social change is its steadily increasing tempo, which places citizens under the increasing difficulty of getting any sort of adequate understanding of their world in order to adjust themselves to it. This situation is primarily responsible for the phenomenon of 'social lag.' Invention and scientific knowledge are advancing so rapidly that our social institutions cannot keep pace and we are, therefore, confronted with one of the serious social problems of this age. At the present time we can identify at least three major effects of this situation upon general education:

¹ U. S. Census Bureau News Release, Feb. 12, 1936. The percentages are as of the year 1934.

a. Stress upon the Social Studies. There has been a steadily increasing emphasis in our program of general education upon the social sciences, and it is certain that in the future the fundamental core of general education will be built around the social studies.

b. The Adult Education Movement. If it was ever possible that four years of college or university education could prepare one for continuous life adjustment, it is certainly not the case today. The increasing complexity of modern life requires a continuous readjustment on the part of everyone, and the problems of this adjustment are so acute and the need for information is so great that the acquiring of the knowledge for this adjustment is having to be reduced to a formal process.

c. The Need for Guidance. The increasing complexity of modern life and the increasing tempo of social change are developing a need for guidance today that was never felt so keenly before. This need for guidance is not confined merely to vocational guidance, but must deal also with practically every other phase of our adjustment problems. This need is so acute that no program of general education would be complete if it neglected to give guidance a fundamental place in it.²

4. The Changing Nature of the Work Process and the Delay of Youth in Going into Employment

Another trend that is profoundly influencing our problem is the fact that the jobs in American society are becoming more and more mechanized. The employment process seems to be requiring finer and higher skills of relatively fewer and fewer people, while increasing percentages of the jobs are tending to fall into the routine, repetitive, and operative types that require little or no technical training for initial competence in them. In short, we are facing an occupational future in industry that is becoming more mechanized, less concerned with highly developed mechanical skills, less given to practical instruction outside the industrial plant, and more insecure for workers with a single vocational skill.

Studies made by the American Youth Commission reveal that to a large percentage of youth economic security is deemed their most urgent personal need. The problem of unemployment is very great, but even employed youth face serious difficulties. Rates of pay tend to be low; hours tend to be long; a majority of youth must contribute to the support of families. Many youth are in blind-alley jobs; some are in jobs they will shortly lose because of advancing age. Many more youth

² The reader may refer in this connection to the *Thirty-Seventh Yearbook, Part I*, of this Society, entitled "Guidance in Educational Institutions."—Editor.

aspire to enter professional and semi-professional fields than are at all likely to be accommodated, and the majority are forced into unskilled or only slightly skilled occupations in which the turnover in employment is very rapid.

It has just been noted that many jobs today do not require any technical training. Furthermore, of the jobs that do require technical training, it is estimated that, exclusive of the professions and skilled trades, as much as 90 percent of the vocational education for specific job training can be acquired in short-term courses varying from a few days to six months as a maximum.

Another factor of importance is the delayed employment of many youths until they are 18, 19, and 20 years of age. Hence, the training for specific vocational skills can be, and is actually being, delayed to a post-high-school period. In some of the larger cities very good technical schools are available. As many as 90 percent of the students enrolled in these schools have already completed the high school before entering.

Because of this lack of employment opportunities and the reduction in hours of labor, the matter of leisure time emerges as a social problem of real significance. The training of youth and adults alike for a constructive use of their spare time is surely one of the major objectives of modern general education.

III. THE IMPLICATIONS

The social factors just mentioned are producing a new situation in American education and are calling for increased attention to the problems of general education. The lack of opportunity for direct participation in everyday activities of American culture points toward a closer association with the community and more direct social participation as a part of general education. The lack of opportunity for self-expression calls for more opportunities for creative effort as part of the program of general education. This means that we must give a great deal more attention to programs of arts, crafts, music, group games, folk-dancing, and so forth. The breakdown of traditional standards of values calls for a system of general education that would aid youth in building a framework of values consistent with the democratic conception of life, and the shift from an emphasis upon production to an emphasis upon distribution and consumption calls for a general education that emphasizes the processes of intelligent consumption.

We are now approaching the fulfillment of our commitment to give a secondary education to all youth. This commitment was made ap-

proximately 100 years ago, and no one at that time was capable of seeing what the results would mean when it reached its full fruition. It was a simple problem in 1840 because only a small percentage of our population was asking for the opportunities of an education that were envisaged in this commitment. We are, however, reaching the real test of this commitment in 1939 and 1940. For the first seventy-five years of this program no serious problems arose, and in that period we developed a unified school system providing an educational ladder extending from the kindergarten through the university. During this period there was evolved an American educational formula, which, in essence, was that the elementary schools should prepare children for the high school; the high school should prepare youth for the college; and the college should prepare youth for the intellectual professions. This formula worked very well during the period in which our country was growing in population and wealth, and while a large part of the continent had not been settled, thus providing abundant opportunities for all of those who were fortunate enough to go through our schools and colleges. Now conditions have changed, and the formula has virtually collapsed. We are rapidly approaching the time when most youths under 18 years of age will be enrolled in school; a frontier no longer exists to absorb our increasing population; technology is reducing the number required to carry on the work of society, and an outlet in the professions and white-collar jobs is no longer available for our high-school and college graduates. We are, therefore, facing a real crisis in our democratic theory of education. We do not yet appreciate the radical nature of the experiment we are attempting to conduct. The field of secondary education in the next ten years is going to be the battleground upon which the success of our democratic experiment in education will be tested.

1. Implications at the High-school Level

Certain problems arising out of this situation are far-reaching in their significance for the high school. Our modern high-school program is no longer for a selected few of American youth, but for practically all of them. It is not primarily a college preparatory institution, as it was in its early days, but must now provide a preparation for all students for active participation in contemporary life. We are forced, therefore, to develop a new integrating idea for general high-school education. The traditional curriculum of the classical high school, which

was preparatory to the college and provided the main avenue into the professions, is on the one hand ill-suited to many of the high-school population; and on the other hand, it is perfectly clear, as has been pointed out above, that all college graduates cannot be absorbed in the professions and all high-school graduates cannot go to college. These facts are producing a crisis for education and democracy as well. Until very recently not more than 20 percent of the youth of high-school age were enrolled in school. There was an outlet for high-school graduates in the professions and white-collar occupations. These preferred vocations, however, can no longer offer vocational opportunities to the 65 to 80 percent of youth in different communities enrolled in our high schools. Some of the recent studies made by the American Youth Commission reveal that as many as 70 percent of all young people desire to enter the professional and semi-professional fields, whereas a census of job opportunities reveals that possibly not more than 12 percent can be absorbed in these occupations. Our immigration policy, referred to above, is another factor affecting this situation. Until a few years ago we depended to a large extent upon immigration from abroad to furnish us our supply of unskilled common labor. Thus, if practically all American youth are to be sent to the high school, and if not more than 12 percent can be absorbed in the intellectual professions, and if it is true that 55 to 70 percent of all the jobs require little or no formal or technical training, the conclusion is inescapable that a radical revision of our entire concept of high-school education is essential. If our premises are true, then, many high-school graduates will be forced into common labor and dead-end jobs. When this situation is reached, the purpose of high-school education will have to be something more than "preparation for a job."

It does not seem possible to overemphasize the implication of this situation as a crucial test of the theory of secondary education. Unless we can adapt our program of secondary education to the realistic needs of contemporary life, there is a serious question as to the ultimate success of our experiment in universal secondary education.

These factors raise the question of the relation between vocational education and general education at the high-school, junior-college, and college levels. The program of vocational education we have had in the high schools is not an adequate answer to our present problem. It has already been pointed out that job opportunities are not available to many high-school graduates. Recent studies also indicate that among

the unemployed as many young people may be found who have had vocational education as have not had it. Also, the trends in enrollment in the technical schools in our large cities indicate that many of those enrolling in the technical schools are already high-school graduates. It should be noted further that most of those who drop out of school before completing the high school go into the unskilled trades. Technical training of a specific sort, therefore, is inappropriate to these youth, save for a generalized vocational training for a 'family' of occupations. Considerable research done by the United States Employment Service indicates unrealized possibilities of generalized vocational training for such 'families' of jobs.

These facts indicate that we are now approaching the time when the high school can be relieved of the responsibility for vocational education of a specific sort and thus devote itself almost exclusively to a program of general education.

Thus we have arrived at the conclusion that the high school in the future is to be primarily a place for general education—a form of education so much more important than any of the electives or the vocational courses that no school should omit it. Furthermore, there must be a well-articulated program of general education extending through the high school, the junior college, and the senior college. This problem of articulation is complicated at present by the introduction of the junior college. Before the advent of the junior college there was a definite line of progression from the high school through the senior college, and the problems of articulation were not so difficult as they are today. More will be said in a later section about the functions of the junior college in this situation.

At this point we need to indicate the essential features of a program of general education. Its primary purpose is to give preparation for intelligent participation in the experiences of life shared by all persons; that is, for general living in a modern community. The only truly liberal education is that which furnishes common background for cultural life and prepares for intelligent citizenship. If every citizen is to discharge the high responsibilities of citizenship in a democracy, there is a moral obligation upon him to be intelligent about all the issues and problems with which he is called upon to deal, and upon which he passes judgment. No important interest, or issue, or problem of contemporary life, therefore, should be absent from the training of citizens in a democracy. Every citizen should have the fullest opportunity to study, to discuss, and to evaluate the major problems of contemporary life.

This common program of secondary education, therefore, should be as broad as life itself in a modern society. In principle, it should cover every problem that individuals face, including those of an intimate personal character as well as those that relate to the highest ends and purposes of the total society.

The central problem of curriculum-building for secondary education is to identify these common elements in the experiences of all and to prepare materials and procedures that will insure for all youth an opportunity to share in these experiences.

Furthermore, this program of general education must insure that individuals have a general understanding of their intellectual heritage. There has been for centuries a stream of culture that in every age has been the basis for whatever civilization existed. This constantly growing cultural heritage has been preserved and exists in many forms—in language and literature; in sculpture, painting, music, and architecture; in religion, and in folk-ways; and in philosophy and science. The functions of general secondary education should be primarily concerned with the transmission of this culture.

Furthermore, this program of general education must also give consideration to the area of life represented by the search for ultimate, or spiritual, values.

2 Implications at the Junior-College Level

The implications for the junior college arising out of these social factors are of particular significance. The suddenness of these changes and the strength of their impact are making the junior college the center of much of the discussion of educational reorganization. There are several good reasons why this is so. The junior college is a transitional institution. It has been trying to bridge the gulf between our secondary schools on the one hand and our system of higher education on the other. It is not surprising, therefore, that the junior college has never satisfactorily found itself, has not decided where it belongs in the American scheme of education,—whether it is to be a part of the system of higher education or of secondary education. At present it is trying to ride both horses at the same time. Also, it does not know whether it should be a two-year or a four-year organization, and it is particularly uncertain about its relations to professional and technical education. It does not know whether it should be a preprofessional or a preparatory school, or whether it should be a terminal institution for general education. Again

it has tried to be both and in the process has suffered, no doubt, from a divided purpose and a confusion as to its emphasis.

What do the factors outlined above portend for the future of the junior college? If practically all youth are going to the high school and an increasing number are going to the junior college and the college, two things are inevitable.

First, we must provide a program of general education through high school, junior college, and college. Practically all the high-school course, possibly three-fourths of the junior college course, and at least one-half of the college program can well be devoted to a program of general education.

Second, we must also provide for youth a training for vocational opportunities that is as inclusive as the demands of modern society. Since our system of higher education has for its function preparation for the professions, it seems clear that the training for vocational opportunities in the semi-professional and semi-skilled occupations must be provided on a large scale by our system of secondary education, which for purposes of this discussion includes the junior college.

Three-fourths of all youth are now out of school at eighteen and thus have no formal schooling beyond the level of secondary education. Whatever the schools do for this group must be done within the range of a secondary-school program.

We have noted that these 75 percent make up largely the unskilled and common laborer groups. The 25 percent who continue beyond the high school make up the groups who are going into the skilled trades and the professions and into a large number and variety of semi-professional and semi-skilled jobs. It is here that we have had in the past an inexcusable gap in the program of public education in America. We have failed to provide vocational training for valuable types of services employing hundreds of thousands of men and women—vocations for which more than a high-school education is desirable, and yet which do not require a four-year college or university preparation. Among scores of such occupations may be mentioned landscape experts, building contractors, drug and chain store managers, electricians, real estate and insurance salesmen, and the like.

These facts seem to point obviously to a relation between the junior college and professional and technical education. Since not more than 12 percent of our youth are going to be absorbed into the professions, these individuals should be identified in the secondary school and given the program of general education they will need. I can see no good

reason for an emphasis in this program upon preprofessional work. The best possible preprofessional work for the intellectual professions is a thorough background in general or liberal education.

In addition to those going into the professions, there will be still others who will desire to go on to the university for what it has to offer entirely apart from professional training, but I can see no reason to differentiate them in their secondary course from those going to the university for professional training.

Roughly, another 20 percent of youth are going into semi-professional and semi-skilled trades. Practically all of them can acquire all the technical training they will need in short-term courses (a few days to six months). This training, I believe, can usually be given, after the completion of the formal part of general education, in schools like the Opportunity School in Denver, or the Technical School in Los Angeles. Others who must drop out and go to work before eighteen should be identified and given the specific training that they will need for their initial competence. This technical training should be given whenever, in the judgment of those who know youth and their situation, it is wise to admit them. Some of them probably should be admitted into these technical courses at the end of the junior high school, some at the last year of the senior high school, and still others after high-school graduation. In other words, there should be a high degree of flexibility in this technical training program to meet the employment opportunities and the needs of youth.

In the 'families' of occupations already mentioned there will be a great deal of mobility—of shifting from one job to another and from one industry to another, and hence there will be less security for workers trained in only a single skill. For these men there should be opportunity for brief retraining in order that they may make necessary readjustments. The same need for retraining will also apply to many workers in the semi-professional and semi-skilled groups. All these types of technical training should be provided in our program of public secondary education. Thus the relation of the junior college and of the high school to vocational education seems to become relatively clear.

This discussion also leads to a relatively clear understanding of the relation between the high school, junior college, and college and their programs of general education. From the discussion four suggestions relative to the future of the junior college may be made.

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This discussion also leads to a relatively clear understanding of the relation between the high school, junior college, and college and their programs of general education. From the discussion four suggestions relative to the future of the junior college may be made.

First, the junior college should give up its ambition to be a part of higher education and seek its fortune as an essential part of secondary

education. In doing so, it should become a part of the public school system of every state, and hence its functions naturally will merge with those of secondary education. Its primary function, therefore, will be to articulate its program with that of the high school and thus to complete the formal processes of general education.

Second, it should begin its work of articulation with the junior and the senior high schools in organizing a continuous program of general secondary education for all youth. At this point we are in need of a great deal of experimental work. Several types of experimentation might be set up; for example, (a) in an industrial community that has a junior and a senior high school and a junior college; (b) in an agricultural community that has a junior and a senior high school and a junior college, and (d) in communities of both types that do not now have junior colleges.

Third, as its second major function the junior college should provide a great variety of short courses that will lead to semi-professional and semi-skilled trades. These technical courses should be primarily of two kinds: (a) a broad, generalized, vocational training applicable to 'families' of occupations, and (b) a wide offering of training for initial competence in many kinds of jobs.

Fourth, this reorganized secondary school should provide an adequate program of adult education for its community. Such a program of adult education will be concerned with both technical education for adults who will be needing short-term courses to enable them to make readjustments in employment opportunities and a wide offering of courses in general education designed to keep the adult population intelligent relative to contemporary issues.

3. Implications at the College Level

The impact of the trends discussed in this paper upon higher education is producing some very significant problems. It raises first of all the question of the functions of higher education. Is it the purpose of colleges and universities to prepare youth for professional and technical vocations? What are the functions of colleges and universities with respect to general education?

It is perfectly clear today that our technical and professional schools at the higher level can graduate and are graduating many more candidates than can find employment in fields in which they have received their major training. Furthermore, if these same universities and technical schools continue to admit the increasing percentage of youths ap-

plying for training at the higher level, the problem will be further aggravated and raises the questions: Are too many youth going to college? Are we going to limit the number who shall go, as is now being done in some of the professions, particularly medicine?

The statement is often heard that too many youth are going to college and that there are many others who should be going that do not have the opportunity. By what criteria are these questions and assertions to be considered? One of the studies of the American Youth Commission throws very significant light upon these issues. In a sampling of 30,000 youths in the State of Pennsylvania, it was found that approximately 172 per thousand of these youth, after graduating from the high school, entered institutions of higher learning. Of these 172, 67 per thousand failed to pass the work of the freshman year and were dropped from school. On the other hand, it was found that there were 174 per thousand of these youth who, according to the best indexes of ability to do college work, had as good qualifications as the 105 per thousand who went to college and succeeded in completing the work of the freshman year. Thus, if present standards of higher education are maintained, it is probable that there are as many American youth who are not going to institutions of higher learning but who could succeed reasonably well with college work as there are now students enrolled. Are these American youth to be denied the values of a higher education simply because they do not have the economic means of achieving it and because there are not job opportunities available to them in the professions?

The implications of this discussion are seemingly that if we are to continue our democratic philosophy of education and provide educational opportunities for all youth at all levels, the program of higher education must be reorganized to meet the needs of an increasing percentage of youth whose destiny is not in one of the professions. The need at the college level, therefore, is, again, a more effective program of general education.

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CHAPTER III

YOUTH AS DEVELOPING ORGANISMS

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I. INTRODUCTION

A youth is a growing and developing organism. Being this, his characteristics, such as appearance, capacities, needs, interests, and problems, undergo an orderly evolution set by the biological laws of growth. Simultaneously his characteristics undergo a contingent development and change, conditioned by the environing conditions, by the experiences, and by the opportunities in and through which he acts. Physique, character, and personality are the outcomes of this dynamic interplay of forces; they are not the resultants of heredity plus environmental influences but of the interplay of hereditary and environmental forces in and through the functioning individual. To put it differently, physique, character, and personality issue from complex biophysical and social processes; they depend upon the order and regularity of the individual's pattern of growth and upon the appropriateness of the experiences, tasks, and surroundings confronting him during his successive growth stages. From this fact it follows that persons and institutions responsible for the general education of youth will not understand their obligations and opportunities until they understand growth and developmental processes and see their own rôles as parts of a complete cycle.

This chapter presents some of the newer trends of thought about the processes of growth and development. No pretense is made that the concepts set forth represent absolute truth, adequately validated by scientific research. On the contrary, it is only recently that the methodology of research into growth and development have reached the point of yielding genuine insights into the dynamic processes involved. Many very valuable studies are only now being made and few published results are available. Among these are investigations currently being conducted by the Institute of Child Welfare of the University of California,

the Institute of Human Relations at Yale, the guidance staff of the University High School in Oakland, California, the Psychological Clinic at Harvard and the Shady Hill School in Cambridge, the Medical School at Western Reserve University, the General College of the University of Minnesota, the Detroit Public Schools, the Child Welfare Station at the University of Iowa, and the staff gathered by the Progressive Education Association to conduct its "Study of Adolescents." It is with the thought of sensitizing persons interested in general education to the importance and implications of the findings of these studies, which will be published during the next five or ten years, that the chapter is prepared. The concepts presented herein developed chiefly out of personal knowledge of some of these studies and, while no institution or person carrying on a research should be held accountable for any idea presented, the writer is heavily indebted to these leaders for information and stimulation.¹

Foremost among the new concepts is the recognition that *standards or norms of growth based upon chronological age are largely bloodless abstractions with little meaning for the educator*. Rather, normality and health have to be judged by the pattern of change shown by the *individual*. This pattern is evaluated in terms of fluctuations in rate of growth, interrelationships between different aspects of growth, symmetry, and correspondence to typical sexual or racial forms. The study of growth in terms of the pattern, or profile, emphasizes the essential unity of the psychophysical organism and, while different aspects of growth have to be discussed separately in this chapter, in dealing with any individual person it is essential that any and all measurements be considered in relation to the personality and physique as a whole. Unless the various objective measurements of special characteristics can be melted into an understandable synthesis that is the individual, our educational policies derived from them are likely to be as lacking in understanding as were the concepts of the traditional blind men describing the elephant.

II. PHYSICAL GROWTH

Physical growth is defined as increase in the size of the structures of the body. It results from the biogenic tendency of the various parts of the organism to increase in size at differential rates, under the stimu-

¹ Special mention should be made of indebtedness for information and concepts to the following: Marion Brown, Walter F. Dearborn, Lawrence K. Frank, Harold Jones, Henry Murray, James Plant, Frank Shuttleworth, George D. Stoddard, Herbert Stolz, and Carolyn Zachry.

lating effects of hormones and under the stimulating, limiting, or conditioning effects of nutrition, function, infection, climate, and possibly other factors. Growth stops when the stimulating effects of the growth-inducing hormones are neutralized by other hormones produced from other newly matured endocrine glands.

There follows here a series of generalizations about growth that seem to be true on the basis of studies of the consecutive growth of many *individuals*, each followed through a period of from six to twelve years:

1. *Physical growth is seldom a regular, even increase in size, taking place uniformly in all structures and during the whole period of growth.* Different stages in the growth cycle usually are marked by differential rates of growth in different parts of the organism and by changes in the rate of growth of the whole organism as well.

2. *The growth of nearly all individuals seems to follow a common pattern, or cycle.* Individual differences in size, proportion, and appearance result from differences in the size of the increments at identical stages of the growth cycle and from differences in the duration of the various stages of growth. Thus the ultimate size of any structure is conditioned primarily by the rate of growth at the various stages and by the length of time that the individual remains in each stage. The pattern of the growth cycle is roughly the same for all and seems to be biogenic. The rate and duration of growth in each stage is determined by the interplay of biogenic forces and such environmental factors as nutrition, exercise, climate, and infection.

3. *The stages in the growth cycle reached by individuals at various times during their second decade seems describable in terms of a composite rating.* Factors that might be included in this composite rating are: (a) stages in genital growth; (b) stages in the growth of secondary sex characteristics; (c) differential patterns of increments of growth in different parts of the body.

4. *There are significant differences between the sexes in the body proportions ultimately achieved, in the ages at which different growth stages are reached, and in the ultimate size of the different body structures.*

5. *There are significant racial differences in the ultimate size of different body structures, in the body proportions achieved at maturity, and especially in the ages at which the different growth stages are reached.*

6. *There appears to be some relation between the body proportion ultimately achieved by an individual and what is loosely called his tem-*

perament. This is theoretically explainable by the fact that various equilibria between the secretions of the several endocrine glands stimulate differential growth patterns and at the same time influence or determine the rate of energy output, the emotional liability, and the intensity of emotional reactions of the individual. These latter in turn affect the social rôle that the individual plays and, as time passes, account for the composite characteristic called 'temperament.'

7. *The rate of energy output in an individual changes as he passes through different stages in the growth cycle.* These normal changes in energy expended tend to be accompanied by changes in behavior and consequently in the apparent, or functional, personality of the individual. Individual differences in the rate of energy output are co-important with differences in physical maturity and with differences in size and sex-typicalness in determining social rôles and the effectiveness of the adolescent in these rôles.

The foregoing generalizations about growth yield important insights into the personalities of the young people passing through them and consequently are very important to persons interested in the general education of youth. For example, a person's gross size, or the size of various body structures, is noticed by the youth and by his associates; as a result, nicknames are given, or the individual's social effectiveness in games, in 'rough-house' activities, or in parties may be decreased or enhanced by his size. Gradually the individual takes his cue from the way others speak about him and from the way things work out for him, so that his attitudes toward himself, his way of thinking about himself, may be influenced profoundly by this factor. Compensatory behavior may appear and thus the youth's whole personality may become colored by the contrast that his physique shows to others of his social group.

The age at which the adolescent growth spurt occurs varies widely from person to person. The time of marked genital development and of the appearance of the secondary sex-characteristics differs greatly among classmates. Naturally each adolescent evaluates his own stage of growth in relation to that of his associates, and the result influences not only his feelings of normality and self-value but also his behavior and emotional adjustment. Early maturing may be temporarily upsetting, but its effects on the personality are not so likely to last as are the effects of delayed maturing. Persons who mature early see their associates rapidly growing to the point of showing the same characteristics as they now possess, whereas those who mature late see themselves remaining children while their associates grow up. Such late

maturing individuals do not share the changes in interest and social outlook of the young people around them and consequently the compensatory behavior they show often is ill-advised and alienates them further from their group. This may give rise to more or less permanent personality characteristics, such as evidences of inferiority feelings, shyness, irritability, or withdrawing tendencies. It may delay or limit the heterosexual adjustment of the boy or girl and even lead to leaving school, to truancy, or to other forms of delinquency.

The effects of markedly asymmetrical and sex-atypical growth are similar to the psychological effects of delayed maturation. Each person compares his or her body proportions to those of others of the same sex and social group and evaluates his own worth personally and socially in terms of what he sees. Perhaps this is more important to girls than to boys, but both have their behavior, emotional adjustments, and attitudes genuinely influenced by these facts, which they are relatively powerless to control. Consequently, asymmetrical and sex-atypical growth have a considerable influence on the personality. If any young person shows atypical growth, then, it is psychologically as well as physically important to consult promptly with a specialist on the endocrines in the hope that he may be able to bring the individual within the normal range of variation before too much damage is done the personality.

Another type of maladjustment occurs when the environment demands activities or energy output that is not optional for the individual's physique. Indeed, the demand for work involving an expenditure of energy beyond that which is in the optimal range of the individual, as well as work conditions that are repressive of the optimal expenditure of energy, alike cause anxiety, tension, and emotional outbursts in young people. It is very important that educational authorities and counselors be sensitive to individual variations in energy available for use, or needing employment, and that they endeavor to keep the energy demands of the educational environment within the range of healthy variation.

A vital point for the educator to grasp is that every young person is evaluating constantly his own growth and developmental status against that of his fellows. The second decade is the period when the child gradually emerges from the protection and consideration of the family and makes a place for himself among his peers. It is the period when he is very sensitive to factors that determine his place in the group, and those factors that he feels himself unable to control, such as his own growth,

are particularly potent determiners of his attitudes about himself and his relation to other people. If his growth is timed with that of others in the group, and if the maturing structures place him favorably in the group and enable him to behave effectively or in superior fashion, then he develops self-confidence, feels that he is assured a significant rôle in life, and dares to approach the opposite sex with equanimity. But if his growth is timed later than that of his peers, or if the maturing structures are conspicuously atypical in any manner, or if he has disabilities that make him function poorly, then he develops self-consciousness, inferiority feelings, and compensatory behavior that may be unsocial, withdrawing, or protest in type.

These attitudes toward self and towards others and the emotional conflicts engendered by them often persist as disturbing influences in the personality long after the growth process has ended, and, indeed, frequently influence the behavior of persons already in middle age. It is for this reason that the growth history of an individual is a matter of concern to all entrusted with his general education, including those responsible for his collegiate experiences. Many odd personality manifestations of young persons in college are to be understood very readily through a knowledge of the growth background of the individual. Without this information they would appear to be due to an unsocial or malicious or trivial nature. For it must be understood that many young persons, who have experienced earlier failure and discomfiture will later reject as personal goals quite normal tasks and relationships and activities. Fearing repeated failure or embarrassment, they often adopt elaborate rationalizations to explain to themselves and others why they wish to keep out of the stream of college life and activity. If permitted thus to avoid normal responsibilities and to shun normal activities, the personality will be colored permanently and a life-long pattern of failure, or of only partially realized potentialities, may be established. Many young persons who receive college diplomas nevertheless, through their college experiences, have cast their attitudes and personalities into patterns that doom them forever to needless failure or mediocrity, and the college must be regarded as having failed to educate them in the best sense.

III. MENTAL GROWTH AND DEVELOPMENT

1. Their Meaning

In this chapter *mental growth* means an *increase in the elementary capacities* for the different types of learning and for understanding the

interrelations existing in reality between the facts experienced *Mental development means the actual learning of truth about existent reality, the actual increase in comprehension of the interrelations existing between the facts experienced, and the actual emergence of behavior patterns* appropriate for dealing with these realities. Mental growth, then, is essentially biogenic, while mental development depends upon the nature and scope of the experiences through which the individual passes. Both are indicated by increases in knowledge, in understanding, and in the effectiveness of behavior. Intelligence tests measure mental growth and development at the same time and should be thought of as evaluating 'effective intelligence' rather than 'native intelligence,' for the test results really measure the extent to which the mental development has taken place that is normally to be expected in a child whose mental growth is normal. From this fact it is obvious that limitation of experience, or unfortunate experience, may prevent the actually accomplished mental growth from showing itself in the form of an 'effective intelligence.'

Although little can be said with scientific assurance about mental growth, the following generalizations probably are safe:

1. The elementary capacities to learn, to develop valid concepts about interrelations, and to perfect appropriate behavior patterns vary within any large unselected population in accordance with the normal curve of probability.

2. Research has indicated that these capacities increase throughout childhood and a considerable part of youth. Neither the average age of cessation of mental growth nor the ultimate range in age at which mental growth ceases is known conclusively, but there are indications that mental growth stops very early in the second decade in some individuals and continues well on into adulthood in others.

3. Because of the facts presented above, the assessment of mental growth must be the common concern of persons entrusted with the general education of youth throughout the secondary school and college. This assessment is necessary in order to differentiate the experiences offered young people in such a way that they will not be too advanced to be assimilated and that at the same time they will be graduated in such a way as to induce a maximum of mental development, even in the most gifted.

The remainder of this section will be devoted to mental development rather than to mental growth, because general education is charged with the task of providing the experiences that will induce the maximal

'effective intelligence' possible to individuals, taking into consideration the level of mental growth they have achieved. The necessary warning is against confronting the individual with experiences and tasks that are beyond his momentary level of mental growth.

2. Function of General Education in the Process of Mental Development

a. *Supplying Experiences.* In connection with mental development general education can be said to have two major functions. The first of these is to *supply youth with the experiences* through which they can learn those facts that should have significance in determining their behavior. This implies experiences that will reveal the pertinent facts about the physical, social, vocational, political, economic, esthetic, and ethical aspects of life as it goes on in our culture and in the rest of the world. It implies that *enough experiences* about these aspects of life must be given to enable the individual to make intelligent decisions regulating his own behavior in these areas. It implies the *kinds of experiences* that will lead to effective behavior, to appropriate, adjusted behavior. Centuries ago, when there were no schools, young people learned what they needed to know to live effective lives. They learned these things in the home, in the field, in the town, and at the church through concrete, tangible experience, and by listening to their elders. Now they are put into schools designed systematically to supply experience that will produce understanding and effective behavior, but all too often the school shuts them away from significant experience rather than supplies it.

b. *Promoting Mental Organization.* A second major function of general education is to promote in youth *the organization of the memory residues of their experiences into valid generalizations, operational concepts, attitudes, and standards of values.* Memory traces left by myriads of separate and diverse experiences have to be ordered in the mind, arranged in valid relationship to each other, and digested as to meaning for the individual in the light of his needs. From this ordering of remembered experience come generalizations about cause and effect, concepts about how things work or about what procedures are most effective for meeting situations, attitudes about the relative desirability or undesirability of a given thing or action, and convictions about what is valuable in life and therefore worthy of sustained effort or sacrifice. These fruits of the organization of the memories left by experience are among the most significant attributes of personality. In fact, they are

the factors that give structure to the personality. Nothing about a man is more important than his convictions and his system of values. Nothing is more significant than his attitudes, his ideas about how nature and the social world operate, and his generalizations about cause and effect, about the properties of matter and energy and about his culture group and his own rôle in life. Behavior gets much of its power and all its direction from these organized mental resultants of experience, for they represent the translation by the individual of the meaning of his experiences into terms of what he must do and say to meet his needs and those of the family, the community, and the nation with which he identifies himself. Character is a result of this organization of the meanings of experience, and innate capacities can come to fruition in constructive activities only after this organization has been accomplished.

c. *Symbolizing as an Aspect of Generalization.* Before more is said about the significance of this process of assimilating experience into the personality, mention must be made of the habits and skills necessary to facilitate this assimilation. It is next to impossible for an individual to accomplish a valid organization of memories of experience unless he is very skillful and accurate in *symbolizing* these experiences. Language and mathematics are two major ways of symbolizing experience; but mime, dancing, music, and the graphic arts also are important means of symbolization. Accurate symbolization of one's own experience is the basis for accurate thinking, for the derivation of valid meanings. It also makes possible an almost infinite expansion of experience. Through symbols a person can share the experiences of others. He can project himself back through time and know how men felt and thought and believed as our culture evolved; he can also project himself through space, share the experiences of people in other contemporary cultures, and get fresh points of view whence to inspect and reflect upon his own problems, his ethics, his esthetics, and his religion or his philosophy. By these means he can increase the variety and enhance the validity of his generalizations, his operational concepts, his attitudes, and his hierarchy of values. It is no wonder that general education is so much concerned with language, mathematics, music, dramatics, and the graphic arts. General education should concern itself with them, not so much with study about them as with assisting the individual to develop skill in using and interpreting these symbols of experience accurately.

d. *Mental Organization and Mental Health.* The mental health of an individual is closely tied up with the effectiveness with which he has

accomplished the symbolization and the organization of the memories of his experience. Since behavior finds much of its immediate dynamics and direction in a person's generalizations, operational concepts, attitudes, and value concepts, his success or failure and, consequently, his emotional adjustment hinge upon the *validity* of these aspects of his personality. If his attitudes and ideals are not *consistent* within themselves, then he will be continually at war with himself and dissatisfied with all that he accomplishes. If his generalizations and operational concepts are not *valid in reality*, then his decisions will be faulty and his behavior ineffective for accomplishing his aims and satisfying his desires. If his attitudes and beliefs run counter to the *pattern accepted in his culture*, then he will be frequently in conflict with society and will be excluded, punished, or frustrated by the people around him. Full self-realization, therefore, is dependent upon the assimilation of experience to the point where the whole personality is integrated around a core of ideals, beliefs, convictions, and values that will be not only consistent with each other but also valid in the light of objective reality and harmonious with the culture pattern in which the individual finds himself. Satisfactory self-realization will be thwarted by anything that prevents this effective integration of the personality, as, for example, by limited experience, by lack of skill in the accurate symbolization of experience, by a disinclination to ponder the meaning of experience, or by lack of aid and guidance in assimilating experience.

These considerations show that general education has a large responsibility for the mental health of the population. The second and third decades of life are especially important in connection with the assimilation of experience and the organization of the personality, and the persons entrusted with the guidance of mental development during this period must see their obligations clearly. No accumulation of credit points in a jumble of relatively unrelated courses can be taken as evidence that their work has been done well. The only acceptable evidence is the production of healthy, effective personalities—personalities that deal forthrightly with the problems of our time and that show emotional stability, valid social ideals, sensitive esthetic appreciations, and a vision of a better future for humanity.

e. Allied Social Obligations. General education likewise has an obligation to society that must be translated into terms of the mental development of youth. The smooth operation and the orderly evolution of an interdependent, industrialized society depend upon the possession

by most of the citizens of generalizations, operational concepts, attitudes, and ideals that are either identical or compatible. The absence of a common body of attitudes and ideals, shared by all, results in numerous conflicts between individuals and between groups and tends to disintegrate the society. If the process goes far enough, revolution or anarchy results. The contemporary period is one of great stress and conflict because we have poverty in the midst of plenty, unemployment while people need the products of industry, and political corruption and scheming when the population needs leadership with vision and honesty in all parties. It is the task of general education to assist in counteracting these centrifugal forces in our society by supplying the body of experience to youth that is necessary for a valid understanding of contemporary problems. To this is added the task of assisting youth in assimilating these experiences to the point where they will agree upon the goals of social life and upon the processes by which these goals may be reached. This would not be a difficult task in a dictatorship. By limiting the experiences of youth and by indoctrinating them with the attitudes and ideals decided upon by the dictator, they could be brought into line very easily. But the United States properly is committed to a more democratic process of evolving its social goals. We rightly do not trust the judgment, the vision, or the ambition of one man; therefore the pattern of mental development in our democracy must follow another path. Our young people must be permitted to see reality as it is, must be given the chance and the stimulus to understand our problems and to grapple with them. The outcome need not be feared if adequate precautions are taken to see that youth debate and finally think through the goals of our society. Such a procedure is bound to result in agreement upon concern for the common welfare and devotion to democratic processes as major characteristics of our nation.

The mental development outlined in the previous paragraphs continues from birth until senescence, but the period between the time a child emerges from the security of his home and the time when he finds a significant rôle for himself in society is particularly important to his mental health and to the maintenance of an orderly, evolving society. This period involves the second and third decades of his life and hence includes the time when he is attending the high school and the college. It is therefore the special task of these institutions to make his mental development their common concern, to plan for the individual and supply him with a coördinated sequence of experiences that will reveal

to him the world in all its aspects, to stimulate and to guide him in the mental assimilations of these experiences to a point where he makes valid generalizations, holds accurate operational concepts, feels appropriate attitudes, and devotes his life to matters of genuine value to himself and society. This is a very different task from that of assisting him to accumulate fifteen points of credit by which he may enter college, or one hundred thirty-two term hours of credit on the basis of which he may receive a baccalaureate degree.

IV. SOCIAL DEVELOPMENT

1. The Individual's Problem of Social Adaptation

Turning to social development in the second decade, we see this as the period in which the individual emerges from the security and consideration of the family circle and the limited social demands of a single school class to a state in which he must win membership in an expanding series of social groupings dictated by community and cultural patterns. Furthermore, in winning this series of places for himself he is confronted by the standards, characteristics, and qualifications of his peers rather than by those of his immediate family. Without doing too much violence to the ethical, esthetic, and cultural concepts inculcated by his family background he must learn to live with his classmates in high school and college and with them to establish a place for himself in the larger community.

In the family it is customary for the affection for the child borne by the parents and siblings to temper both the valuation and the treatment accorded behavior that is ineffectual or inappropriate. Children's failures and wrongdoings very properly are forgiven or treated lightly, with the expectation that later they will learn better. So the child in the home feels a basic security; he cannot be rejected completely or seriously because of who he is. He knows that always he is assured a place in the family circle, a haven to which he can return for sustenance, comfort, and affection. During the second decade he finds a very different situation outside the home. In his school and college, and in the community at large, failures and selfishness are penalized and special privileges ordinarily are not granted. His place must be won and his rôle secured by the effective behavior and by the demonstration of characteristics that contribute to the realization of the objectives of the groups to which he aspires to belong. Certainly this implies many changes in attitude, much social learning, and many personal reëvalua-

tions of patterns of behavior formerly taken for granted. It is only natural, then, that during the second decade young people are pre-occupied to a very large extent with their social status and effectiveness and are eager to discover guiding cues to acceptable behavior.

2. The Obligation of the School to Facilitate Socialization

Here an important obligation of general education is defined. *Only by having many experiences in getting along with different kinds of people under widely varying circumstances can the young person learn which patterns of behavior are acceptable and which are unacceptable. Only through rich experiences supplemented by much conscious evaluation and wise counsel can the individual become sensitive to the affective consequences in others of his own behavior.* It is not enough to throw him into the complex, dazzling, and confusing turmoil of high-school, college, and community 'activities,' there to sink or swim according to his luck and native wit. Educators, counselors, and leaders of youth need to weigh the appropriateness of these experiences in relation to the backgrounds of different individuals, and they should plan better sequences of social experience for the purpose of deepening the insights of young people while at the same time avoiding situations that might arouse dangerous emotional reactions or conflicts.

The especially important rôle of the faculties of secondary schools and colleges in influencing the social development of young people must be stressed. These adults should be of great assistance to young people in helping them distinguish between inferior and superior patterns of social behavior and in helping them set realistic and appropriate social goals for themselves. This implies that social development should be a consciously sought objective of general education and that the faculty should regard their personal contacts with young people as an important part of the curriculum of the institution. It might be well even to stop thinking of these persons as teachers and to regard them instead primarily as professional personnel workers, for the work these persons must do in procuring wholesome social development requires the techniques of personnel departments rather than those of academic teaching. The procuring of wholesome social development cannot be accomplished by too rigid discipline or by prudish preachments; it is something to be done by an older friend and confidant whom the youth respects, by a person full of sweet reasonableness and possessed of a rich background of personal experience outside the academic field.

It is scarcely necessary to point out that successes or failures at any point in the progression of social learnings and adjustments through which a youth passes have a very important influence upon his personality. His evaluation of himself, his attitudes toward others, his operational concepts about social processes, and his very goals in life are shaped by these experiences. Successes and failures in the high school come to college with the young man or woman as the mental and emotional residues of experience. These memories condition strongly the behavior, the vision, and the happiness of the young person in question. For this reason, the backgrounds of social experience through which an individual has passed in pre-college life constitute data for the college that are at least as important as are his academic records; indeed, these data may be of much more importance than his academic records in determining his ultimate success or failure. We can see, therefore, little excuse for giving no consideration to them in planning a young person's collegiate experiences. If general education accepts responsibility for anything beyond the inculcation of academic knowledge, it certainly must accept responsibility for steering each young person through the process of winning the succession of social belongings upon which his personal adjustment so greatly depends.

3. Hetero-Sexual Affective Adjustment

There is a second aspect of social development in youth that must be discussed. Youth is the period during which young people learn to play their rôles as members of complementary sexes. It is the period during which the affectional life is broadened beyond the home to include a member of the opposite sex and ultimately this evolution is the basis for the establishment of a new home, a new family, a new center of the affectional life of the individual. Everyone agrees that no decision a young person makes is more important than the choice of a mate with whom this affectional relationship is to be maintained throughout life. Yet hardly any attention is given to this basic problem by educational institutions, despite the fact that it is during youth that the individual develops his criteria for selecting the mate, tests himself and a succession of persons of the opposite sex in many social and erotic ways, and oftentimes makes a final selection. The developmental process involved in this sequence of experiences must be discussed in greater detail.

a. Affective Weaning. The first step toward a successful heterosexual adjustment comes when the young adolescent shifts his primary

orientation away from his family toward the social-maturity group of which he is a member. In other words, something of a psychological and affective 'weaning' of the individual occurs, so that he no longer depends chiefly upon approval and affection at home for his feeling of emotional security but plays a sort of dual rôle; he holds, as it were, to his home relations with one hand while he gradually achieves a secure hold within his social group with the other hand. This affective weaning seems prerequisite to a successful affective relationship with a member of the opposite sex, but it often gives rise to special difficulties that the educator must recognize. In the first place, the treatment the child has received at home may have made him dependent to an unwholesome degree upon an affective relationship to one or both parents. In the second place, a parent may find his or her chief emotional outlet through the relationship with the child and thus be led to resist his affective weaning in a variety of ways. Under either of these circumstances the persons entrusted with the education of the young person are obligated to study the nature of the difficulty and to facilitate the emotional weaning to the point where a satisfactory relationship with a person of the opposite sex can be established. Of course, this should not involve any break with the home, but rather the extension of the affection of the youth beyond the home without ensuing conflicts.

When the affectional relationships in the home no longer bind and when an affective identification with the social group is established, there follows naturally a progression of exploratory associations with members of the opposite sex. A youth changes from an earlier feeling of antagonism or indifference to the opposite sex, first, to curiosity and embarrassed interest and, later, to a compelling preoccupation with the opposite sex. This often rapid evolution of affective interest is accompanied by exploratory activities. First, a boy will stand around awkwardly where other boys and girls have congregated, pretending to have no interest in girls but furtively watching them and even attracting attention to himself by one device or another. A little later will come the first tentative trials of joint activities with members of the opposite sex, and soon this exploratory association includes games and sports, parties, dancing, the discovery of mutual esthetic enjoyments, semi-erotic physical contacts, partisan work together in committees, societies and clubs, and, sometimes, serious academic work together. These exploratory associations seem to occur in approximately the same sequence in all and give rise to a whole gamut of new affective experiences. They serve to heighten the general emotional tone of the adolescent period. Indi-

viduals who are only indifferently successful in these contacts, and those who find the behavior and values of the group markedly at variance with the ideals they learned at home, may become intensely preoccupied with these exploratory experiences, until the problems involved seem the most important factor in their lives. These preoccupations are concerned with how to be vitally and effectively masculine or feminine, how to attract the opposite sex, and what are the rules of conduct then in vogue in the social group.

b. Physiological Factors. One of the factors operating strongly to produce the shift of affective interest from the home to members of the opposite sex is the maturing of the glands and organs necessary to reproduction. As the body by its changes gives evidence of reproductive maturation, there is a startling increase in the amount of physical contact observable between an individual and members of the opposite sex. This progresses naturally to dancing and kissing games and then to more erotic 'light or heavy petting' whenever the opportunity arises. Masturbation, with more or less definite accompanying imagery, is a normal concomitant. In some individuals an intense preoccupation with erotic experiences and with sexual problems may ensue and this preoccupation may continue for many years. Just here general education faces a serious problem, owing to the influence of home training and earlier experiences on the individual. An adolescent may enter, and even pass through, this period with an intense curiosity about sexual matters because he has little valid information and much garbled information from his fellows. Or he may have intense fears associated with all his erotic experiences because of the things he has been told or the way infantile or childhood episodes were treated. To come through the period from pubescence to marriage in a healthy emotional state requires that the individual learn the true facts about sex without the unfortunate emotional associations of vulgarity, dirtiness, shame, guilt, and sin. Since this infrequently happens under contemporary social conditions, the institutions entrusted with the general education of youth have a serious problem of reëducation on their hands. Many adolescents are grievously in need of accessible sources of valid information during this period but are too self-conscious to ask questions of most adults, including both parents and teachers. Formal instruction about sex hardly seems an adequate answer, because the problems are highly individual and the solutions depend upon the nature of the person's earlier emotional conditionings. Also, all young people do not have these problems at the same time and instruction that is early

enough to reach the first will be premature for many. Rather, there is need for a personnel in these institutions whose views are valid, sympathetic, and seasoned; who can give the necessary information more or less informally, and from time to time as it is needed; and who have the common sense and *rapprochement* to sense the effects of their contacts with young people. Above all, confidences must be inviolate.

c. *Choice of a Mate.* The problems of sex and of choosing a mate are all tangled up in most young people, and this, among other things, makes the final choice of a mate a precarious gamble at best. Just what the factors are that determine the ultimate choice, or that should determine it, are but vaguely understood by psychologists and educators. Psychoanalysts contend that relations with parents during infancy and early childhood are very important influences, and certainly novels, motion pictures, day-dreams, the conversations of adults and of other young people must have some effect. Social considerations, such as family standing, economic privilege, athletic prestige, leadership in activities, and success with other members of the opposite sex, all conspire to give glamour to some individuals and to make them stars of attraction to the opposite sex. Just what part sexual 'resonance' and physical appeal play in the choice is difficult to measure, but the part must be considerable. This is an area greatly in need of research, but in the meantime general education cannot afford to neglect entirely the forces that are guiding young people in the choice of a mate. The least that should be tried is opportunity for the free discussion of the factors to be considered in choosing a husband or a wife, together with a realistic consideration of what the two people must face together in later life. This free discussion might take place in groups or between individuals and members of the staff.

This social process of shifting the center of the affectional life from the parents to the betrothed eventuates in marriage and the establishment of a new family. Success for the individuals involved is contingent upon a number of factors and general education certainly can concern itself with some of these factors without more ado. For example, success in marriage must depend upon the two individuals arriving at agreement on a set of core values, which they will jointly seek to achieve. Now it is quite evident that success is not possible unless these core values are valid for the culture in which the couple is to live and at least partially attainable by persons of their capacities, backgrounds, and opportunities. Success also is contingent upon a true assessment of each other's capacities, interests, and attitudes. Surely

education should do something to help young people to evaluate realistically their own goals and consider their relation to reality, surely education should help young people to develop common-sense ways of assessing each other so that love need not be dull-witted as well as blind.

This developmental process, by which the child gradually is weaned from an exclusive affectional preoccupation with his parents, explores relationships with the opposite sex, including erotic relationships, and finally chooses a mate with whom to work out a set of basic life values, is a long process lasting from the onset of pubescence until the new family has been established successfully. Thus it lasts throughout the period of secondary and collegiate education. Throughout this period it is the source of numerous problems of adjustment that color the individual's satisfaction with his surroundings, his associates, and himself. It is the source of many preoccupations that hold the mind and condition the effectiveness of learning, work, and intellectual development. The wholesome maturing of the personality often is at stake. Since this is true, the evolution of the affectional life of the individual must be the common concern of secondary schools and colleges.

V. EMOTIONAL DEVELOPMENT

Three aspects of growth and development have been discussed at length in this chapter: physical growth, mental growth and development, and social development. A fourth aspect of personality, emotional behavior, has been alluded to repeatedly in relation to the other three, but requires further consideration.

When one seeks to understand emotional behavior, one must regard the human organism as a complex energy system in the process of maintaining various dynamic equilibria within certain normal limits of variation. While the person is spending energy in behavior that is effective in meeting his needs, or in working toward the realization of his desires, there is an accompanying mood, or feeling, of pleasure or satisfaction that is both perceptible physiologically and conscious mentally. But when the person is prevented from working toward the realization of his desires, when his behavior is ineffectual, when he is uncertain of what he wants, or when the situation in which he finds himself is inappropriate to normal physiological processes, then the accompanying feeling is unpleasant and the body attempts to reorganize its economy in such a way as to make more effective behavior possible. This reor-

ganization is technically known as 'emotion.' It has various levels of intensity of feeling corresponding with differences in the intensity and nature of the physiological behavior involved. Emotions, then, really are patterns of physiologically adjustive behavior. Unpleasant emotions accompany the frustration of need, desire, and security, while pleasant emotions accompany the free expenditure of energy in effective behavior.

Space is not available here to discuss the relationship between attitudes, ideals, concepts of value, and emotions; for this the reader is referred to the report of the Committee on Emotion and the Educative Process of the American Council on Education². Suffice it to say that experience and mental development as just described contrive to translate the basic needs of every person into a series of concrete desires. The behavior of this person then is directed toward the realization of these desires and through them of his needs as he comprehends them. Of course, this formulation is somewhat over-simplified, but it does describe the basic facts. It follows at once, then, that emotional behavior cannot be considered, or trained, as a separate aspect of development because the nature of a person's emotions are determined by the extent to which all other aspects of growth and development occur normally and lead to effective behavior. It is for this reason that the maladjusting effects of inappropriate growth and development were stressed earlier in the chapter.

The effects of the unpleasant emotions that are due to maladjustments arising from inappropriate growth and from failure to develop properly in any aspect of the personality are dramatic in terms of physical ill-health, loss of mental effectiveness, and general unhappiness. Protective or compensatory behavior that is socially undesirable nearly always appears and should be modified. Of course, the point, for persons and institutions interested in general education, is that many, indeed most, of the persons whom they try to educate will be suffering some maladjustment and displaying certain inappropriate behavior. The educators, then, have the obligation to recognize these maladjustments for what they are, to seek to know their underlying causes, and in the light of this knowledge to carry on programs of reëducation suited to the needs of each individual. For general education cannot progressively develop and enrich the personalities of indi-

² Daniel A. Prescott *Emotion and the Educative Process* (Washington, D. C.: American Council on Education, 1938)

viduals who are a welter of emotional conflicts, whose thoughts about themselves result in inferiority feelings and with-drawing behavior or in compensatory aggressiveness. The emotional poise and balanced view of life that general education seeks can be had only in personalities that have worked through failures and personal peculiarities to an understanding of their own possible rôles in the culture pattern, who feel that they are in the process of achieving these rôles, and who find in general education a stimulus and an aid in working further toward their own self-fulfillment and social fulfillment.

VI. CONCLUSION

It is hoped that enough has been said in this chapter to sensitize educators to the nature of human growth and development and to the continuing emotional effects of maladjustments arising out of inappropriate growth and unwholesome experiences. It is clear that a young person does not leave his past behind him when he enters college or secondary school; on the contrary, his behavior from moment to moment is formed by that past. This continuity of personality characteristics and problems bespeaks a like continuity in experience and in concern for the emotional adjustment of the individual throughout high school, college, and university. We cannot with full certainty as yet say what general education should do in order to show proper concern for wholesome balanced personality development. Such concern, however, implies two things: first, that all persons administering general education should digest the findings of various studies of human growth and development now being made; and second, that experimental programs of general education should include personnel work, the function of which is to assist young people in ridding themselves of the effects of unwholesome experience, in finding for themselves a possible and satisfying rôle in their own school or college community, and in working toward achieving the same in the larger life outside. These young people must be the common concern of secondary schools and colleges, because their developmental and personality problems are continuous throughout the time spent in these institutions.

CHAPTER IV

YOUTH AND THE HIGH SCHOOL

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I. INTRODUCTION

The recent and renewed emphasis on general education described in Chapter I is not confined to the college and the university. It permeates thought and practice in the elementary and secondary schools as well. In fact, one of the distinguishing characteristics of this stress on general education is the almost simultaneous emphasis at all levels of American education. A most natural aspect of this trend is the stress upon a continuous program of education from the kindergarten through the junior college.

The problem of articulating the units in American education is by no means new. It has received attention again and again in the professional literature. However, changes in the nature of the educational program or in the character of the student population as suggested in previous chapters present new problems relating to articulation. Just as the high school is influenced by a policy of enrolling all normal youth of secondary-school age without regard to uniformity in elementary-school achievement, so too is a college influenced by a secondary school that attempts to serve all, or nearly all, youth.

A secondary-school program that provides for all normal youth raises new problems for the college in the selection, admission, and retention of students. With a probable increase in variability of the high-school graduates, or at least a larger representation from the less favored economic and intellectual groups, what plan shall the college or the university follow? Shall it select students in terms of its particular offering or shall it admit all who wish to enter? The new group presenting themselves for admission, on the basis of graduation from a high school, would seem to make it imperative that colleges and universities clarify their function and admit students accordingly. Unless this is done, many students will be forced into a situation of

failure that might have been avoided, or they will be led through a program of education that is of little value to them, if not really harmful because it actually might arrest the kind of growth of which they are capable. However, the problem is not only one of student population in relation to aim, selection, and admission. The problems of guidance, curriculum, method, and type of faculty member are also involved. Just as the secondary school is increasingly concerned with the attitudes and operational concepts of students, in addition to what is sometimes referred to as pure scholarship, so is the college becoming concerned with the total behavior of its students and their learnings in all areas. The real problem arises because the program of general education is divided into segments with the one part under the control of the high school and the other part under the direction of the colleges and universities. The individualism so characteristic of the agencies and units of American education also renders even more difficult the provision of a continuous and unified program. This common concern of the high school and the college with respect to general education leads to the natural conclusion that changes on one level must affect the other. These influences are described more fully in the following sections of this chapter.

Although little evidence is available showing that particular secondary-school subject matter influences college scholarship, a widespread change in the nature of the secondary-school program will undoubtedly influence the nature of the student body and, therefore, the concept of general education in colleges and universities. To be sure, colleges and universities also profoundly affect the secondary schools. In harmony with the purpose of this Yearbook to consider general education in American colleges and universities, this chapter will be limited to those developments on the secondary level that are influencing education on successive levels. Because the junior college is considered in detail in other chapters, attention is directed here to that part of secondary education provided by the junior and senior high school.

II. HIGH-SCHOOL STUDENTS AND THEIR NEEDS

The tremendous increase in the secondary-school enrollment and some of its profound implications have already been noted earlier in the Yearbook. It is important to recognize, however, that while these changes have been taking place educators in secondary schools have

increasingly accepted as their purpose and responsibility the development and growth of what has come to be termed 'the whole child.' They have been unwilling to continue as mere transmitters or conveyors of subject matter. This change in point of view has, of course, come during a period when the home and the church, which formerly carried much of this responsibility, have apparently lost a considerable amount of their effectiveness. New and powerful forces for molding the individual, such as the press, the radio, and the motion picture, have come into being. Social changes have been such as to affect fundamentally the institutions and forces around which have been developed ethical standards, social attitudes, and acceptable patterns of behavior. All of this has added to the complexity of the task of a school concerned with the many-sided development of the child.

The school's acceptance of this responsibility makes doubly significant a complete knowledge of the physical, mental, and social characteristics of each individual. A knowledge of his developmental needs in each area of human living becomes essential. Native abilities, interests, levels of maturity, and social, economic, and national backgrounds are all basic items of information. Some of the facts concerning the development of adolescents are indicated in Chapter III. Though not a complete classification or consideration of the needs of youth that must be satisfied if they are to develop fully their potentialities for living competently in a democratic society, the following description of a class group will indicate the nature of the needs of many of the students in secondary schools today and the enormity of the task the school faces. Miss Young, a beginning teacher, described her ninth-grade class as follows:

Thirty-five students looked up at me that first day—eleven Japanese, all looking alike to me with unpronounceable names, three Mexicans with olive skins and dirty cords, six Portuguese, two Spaniards, one German, one English, one Scotch-Irish, and ten Americans, the last of whom looked poorly cared for as to adenoids and teeth. The average intelligence quotient for those on whom I was able to get information was 83. Of the group, not one had a father or mother belonging to the professional class. The American fathers were carpenters, service-station managers, fruit workers, vegetable pickers, a ranch foreman, a sign painter, a linesman, and a truck owner. Among the Japanese fathers there was one pool hall owner, a wholesale produce man, four farmers, and five listed as farm laborers—in which cases both parents worked in the fields. The Portuguese parents com-

prised a blacksmith, a mechanic, a laborer, and a radio worker. Among miscellaneous occupations were fruit and vegetable shed workers, the driver of a tractor, and field and fruit workers.

Four Japanese boys sat and stared, neither speaking nor understanding English. One Japanese boy was almost stone deaf. One American boy had been in a reformatory for stealing and was the ring-leader of a group which was bent on making 'teacher' miserable. One girl's father and mother were divorced because the father beat the children. One girl was an orphan, and one boy had been dragged from school to school and town to town by a father who could not hold a job.

There's my group, required by law to attend school, Americans all, some seeking knowledge, most marking time until the law would allow them to pick vegetables and drive trucks.¹

This single statement obviously cannot be relied upon as a complete or adequate description of all the young people in secondary schools. It has the merit, however, of suggesting a multitude of probable needs, in almost every area of living, that must be met if these students are to live effectively with satisfaction to themselves and to society. Further, it typifies many students who have come to the high school in recent years and who are not directed toward college.

What is to be the position of the college with respect to the needs of students thus indicated? If there is any validity in the movement of the secondary school to concern itself with all the needs of its students and their subsequent well-rounded development, it may be argued that the college should have a similar concern. There is nothing magic about high-school graduation that suddenly puts an end to all such needs of students. In fact, much of the fine work of the secondary schools may be weakened, if not negated, by a college program that fails to continue the lines of development started during the secondary period. The extent of this problem can be more easily observed, however, after an examination of the contrast between the usual college program and the high-school program that is emerging in harmony with a philosophy that commits the school to a policy of meeting student needs.

What of the high-school group not directed toward college—the group in which most of the high-school students are found? They are not equipped by interest, ability, or need to pursue the usual

¹ Barbara Jane Young. "A neophyte in a laboratory of democracy." *California Jour. of Secondary Educ.*, 12: October, 1937, 366-369.

college program, but many colleges are seriously questioning whether there may not be some service they can perform for this group. And many colleges are answering in the affirmative. Many junior colleges, arts colleges, and universities are reconstructing their programs to meet the needs of the high-school graduate for whom the usual college program is not intended. In many cases the colleges have come to recognize that their functions are more than mere preparation for upper division, graduate, or professional school work. Whether or not the college or the university decides to adapt its program to serve a larger or more representative group, it is becoming affected by it. It is because of this group, too, that the high school has ceased to regard college preparation as its chief function. The problem the high school faces in serving its heterogeneous population should be evident. One may justifiably question the effectiveness of the usual college entrance requirements either in aiding the high schools to perform intelligently their own task or in assisting the colleges to select the kind of students that they desire. It would seem that colleges might be better served if they described the kind of student they wanted and then worked co-operatively with the secondary schools to select and develop that type of individual. Thus, both the secondary school and the college might coöperatively shape a continuous program in which the primary concern would be the kind of student being developed rather than the units of assigned subject matter a student had studied, regardless of their effect upon the student. However, further descriptions of the secondary-school program may aid in a clarification of this problem of building a continuous program in terms of student needs.

III. ADEQUACY OF THE PRESENT HIGH-SCHOOL PROGRAMS

With some recognition of the diverse needs of its students, the secondary school has made many changes in its program. New subjects have been added in confusing numbers, extra-curricular activities have been provided, and guidance facilities have been developed, but in most cases a complete program has not been carefully planned. Much attention has been given to specialized curricula, as is illustrated by the provision of college-preparatory, preprofessional, vocational, home-making, and other prescribed sequences of courses. However, the closest approach to providing a planned program for all students is found in that part of the secondary-school offering required of all students. The fact that a large percentage of the secondary schools lay down

a general requirement for all students indicates that those responsible for the program have some belief in the importance of these required subjects. What is the nature of this required work? As the greatest weaknesses appear in the program of the upper four years of the high school, attention will be directed to this period.

Table I is an adaptation of information presented in the National Survey of Secondary Education:²

TABLE I.—PERCENTAGE OF SCHOOLS MAKING REQUIREMENTS
IN THE VARIOUS SUBJECT FIELDS AND THE NUMBER
OF UNITS REQUIRED
(Adapted from the *National Survey of Secondary Education*)

Subject	Percentage of Schools Requiring	Number of Units Required	
		Median	Range of the Middle 50 Percent
English	100.0	3.8	3.4-4.2
History	96.2	1.8	1.2-2.3
Social Studies	69.8	0.7	0.0-1.4
Mathematics	69.2	1.5	0.0-2.3
Natural Science	67.3	0.9	0.0-1.4
Physical Education	42.3	0.0	0.0-0.9

These data are based on a study of 152 four-year high schools in 1930-1931, and, from comparison with other studies reported in the same monograph, they appear to be fairly representative of the program one might expect to find in a secondary school. It is evident that 100 percent of the schools require English, that the median requirement is 3.8 units, and that the number of units required in the middle fifty percent of the schools ranges from 3.4 (first quartile) to 4.2 (third quartile). Requirements in the other subjects are also apparent, but the schools vary considerably in the amount of work in a given field that is definitely stipulated. These findings provoked Bobbitt to make the following statement:

² A. K. Loomis, Edwin S. Lide, and B. Lamar Johnson. *The Program of Studies*. (United States Office of Education Bulletin, 1932, No. 17. National Survey of Secondary Education Monograph No. 19, pp. 146-147) Also, see p. 88f. for sample of findings at the junior-high-school level and p. 121f. for sample of findings in the four-year high school.

The high school believes that the most essential thing in life is found in talk, letter-writing, and the reading and amateur writing of literature; that the next in value is the backward view over a world that is safely dead; and that the third largest thing is the mathematics which persons do not use in their general living. If intelligent laymen were asked, "What are the three most essential things in general human living?" it is doubtful that those are the activities which they would mention. In the scientific analyses that have been made, the second and third of these are inconspicuous, and even the first takes a form different from that of the usual English course.³

Bobbitt points out that minor recognition is given to three other factors: citizenship, science, and health. Citizenship education that prepares for living now and in the future rather than for contemplation of the past is given only a semester of attention.

In spite of the stirring character of life in this thrilling age of giant factors, baffling problems, and a bewildered population, citizenship is viewed by the schools as either unimportant or easily mastered. Since we know it is not easily mastered, the high school must think it unimportant.⁴

The result, of course, in a population unprepared to meet its social problems is obvious. Also, in this age of science the average amount of science required is far too little to have value, and even with the recognition of the importance of health, there is relatively little attention given to physical education.

It might be argued that many courses have been added that contribute to the various areas of living or that citizenship and kindred values are developed through the extra-curricular activities or through certain general aspects of the school's total program. Or, it might be admitted that the high schools have not been attempting to meet the immediate needs of students. While all this may be granted, there appears to be little evidence that the American high school has any well-planned program that will assure the values of a broad general education for all of its students. Thus it is possible for a student to graduate from a high school with little or no training in home-making, with little enrichment or understanding of religious or esthetic expression, with little or no experience in coöperating with his fellow-men in social and civic action, with little ability to engage with satisfaction

³ Franklin Bobbitt. "General education in the high school." *School Review*, 43: April, 1935, p. 260.

⁴ *Ibid.*, p. 261.

in leisure-time activities, and with little knowledge, understanding, or vision of the possibilities of improving man's material condition. To quote Bobbitt again, "The program indicated slights or omits most of the fundamental things of enlightened living."⁵

If this be a true characterization of the high school, colleges and universities attempting to develop programs of general education in accord with the concepts suggested in Chapter I have a serious problem of reorientating the students they receive from the secondary schools. The programs of general education emerging on the college level will be less effective if they are pursued by high-school graduates who are the products of a different concept of education. These students will lack broad understanding, and they will be incapable of independent study of outstanding contemporary problems. Thus, although some colleges have broken with the past and have established new curricula, their aims cannot be fully realized until they have the cooperation and support of the secondary schools from which they draw students.

However, the picture is not yet complete. Secondary-school officials have claimed to be restricted by college-entrance requirements. The efforts to remove these restrictions, and the characteristics of the new programs of secondary education now being developed will be described in what follows.

IV. THE REMOVAL OF RESTRICTIONS ON THE HIGH SCHOOL

Present curricular practices in the high school have often been defended or excused on the ground of restrictions or limitations imposed by college-entrance requirements. But this situation is being relieved. Higher institutions are liberalizing the methods of selecting freshmen students and are modifying requirements so that secondary schools will have greater freedom in developing their curricula.⁶ Even the accrediting associations, which have sometimes been regarded as particularly restrictive influences, have increasingly aided secondary schools in the reconstruction of their programs.

One of the most promising developments in secondary-school reorganization is the work of the Progressive Education Commission on the Relation of School and College. Established in 1930, the Commis-

⁵ *Ibid.*, p 261.

⁶ P. R. Brammell. *Articulation of High School and College*. (United States Office of Education, Bulletin, 1932. No. 17. National Survey of Secondary Education, Monograph No. 10)

sion, under the chairmanship of Wilford M. Aikin, initiated an experiment in coöperation with colleges and universities.⁷ The original "plan provided that a small group of secondary schools be set free by the colleges to engage in experimental study of the work of the secondary schools, and that colleges agree to accept students from these schools for a period of five years, beginning in 1936, without regard to the requirements generally in force and without the usual entrance examinations." Selection of candidates from these schools was made on the basis of a statement of the principals, a carefully recorded history of the student's school life and activities and other evidence of his work, such as performance on scholastic, aptitude, achievement, and other diagnostic tests given during the course of his secondary-school work.

In submitting its proposal to the colleges, the Commission made the following statement:

The educational emphasis in this plan is based upon the conviction that the secondary schools must become more effective in helping young people to develop the insight, the powers, and the self-direction necessary for resourceful and constructive living. We wish to work toward a type of secondary education which will be flexible, responsive to changing needs, and clearly based upon an understanding of young people as well as an understanding of the qualities needed in adult life.

We are trying to develop students who regard education as an enduring quest for meanings rather than credit accumulation; who desire to investigate, to follow the leadings of a subject, to explore new fields of thought, knowing how to budget time, to read well, to use sources of knowledge effectively; and who are experienced in fulfilling obligations which come with membership in the school or college community.⁸

More than three hundred colleges and universities gave official approval of the plan and assurance of coöperation. Thirty schools representing the whole range of secondary education were selected for inclusion in the experiment. Beginning their work in September, 1933, the first group of approximately eleven hundred students from the thirty schools were admitted to 170 different colleges in the fall of 1936 and a second group of approximately twelve hundred entered

⁷ The following statement concerning the work of this Commission is adapted from Chapter II of *Progressive Education Advances*. A report on a Program to Educate American Youth for Present-Day Living. A Publication of the Progressive Education Association. (New York: D. Appleton-Century Company, 1938)

⁸ *Ibid.*, pp. 17f.

college in the fall of 1937. Originally three more groups were to have been included under the plan, the last entering college in 1940. However, the experiment has been extended for an additional three-year period.

The Commission believes in more long-distance planning on the part of the high-school student who expects to go to college, to the end that he may see the relation between what he does in the high school and what he probably will do in the college. Thus there would be a tendency to eliminate the break frequently occurring between the two institutions. Further, this plan for each student's education should be an outgrowth of his capacities, interests, and needs. The Commission believes also that there are certain skills, information, and experiences that *all* American youth should have and upon which most educators would agree. However, beyond some such common experiences essential to all, it seems necessary to develop each student's curriculum upon an individual basis.

One of the important results of the work of this Commission is found in the stimulation afforded other groups for undertaking similar experiments. A group of California schools, under the leadership of the State Department of Education, has been given freedom by the colleges and universities to experiment in improving their programs. Michigan and Ohio are beginning similar studies, and the Southern Association of Colleges and Secondary Schools is making an exploratory study that will probably lead to the selection of twenty-five or thirty schools in that region for experimental study of the problems of secondary education.⁹

In all these efforts there is evidence that colleges and secondary schools are coöperating more closely in their joint efforts to meet the needs of students, to provide a record system that will adequately describe the students' high-school and college experiences, to secure an adequate guidance service, and to evaluate the work carried on in the new programs. In some places college authorities are reëxamining the existing college guidance facilities and the regular college programs in terms of the needs of students who are the product of the new programs.

This appears to be a most propitious development. Increasingly it is being recognized that there is no one curricular pattern that will meet the individual needs of all students and that there is no specific

⁹ *Ibid.*, pp. 33f. See also *Recent Developments in Secondary Education in California: A Preliminary Report of the Coöperating Schools*. (State of California, Department of Education Bulletin No. 6, October, 1936)

pattern that provides a suitable basis for entrance to college. This decrees an increased concern for the individual and his growth and development on both the secondary and the college levels and makes the individual pupil the final basis of articulation. Obviously, such a basis of articulation presumes complete and adequate information about individuals and the intelligent use of this information before, during, and after admission to college. The collection and the wise use of this information about individuals present a difficult, technical task, but one that should be entirely feasible within our present institutional framework. It will require an abandoning of printed, uniform requirements in favor of coöperative planning on the part of secondary schools and colleges to the end that articulated and unified general, as well as specialized, programs may be developed.

V. CHARACTERISTICS OF THE NEW SECONDARY PROGRAMS AND THEIR IMPLICATIONS FOR THE COLLEGE

Any survey of the literature on the secondary curriculum reveals a large number of schools, in addition to those working under the Progressive Education Association experiment, that are revising their programs to provide an improved program of general education. Almost every school developing a new program has some particular or unique emphasis. As space does not permit a detailed consideration of a large number of plans, an attempt will be made to indicate the character of the new programs by giving limited samples of the form the programs have taken and then summarizing the more important general characteristics and the special emphases most frequently found.

It is well recognized that the important part of any program of education is measured by what actually takes place in terms of pupil experience. However, some consideration of the general form and nature of the new programs—of the paper plans for them—is of value in indicating their general pattern.

1. Denver East-High-School Program

In Denver, Colorado,¹⁰ the East High School developed a *core course* that included much of the work usually taught in English and the social studies. It also provided for a continuous counseling program through an arrangement whereby teachers remained with a group for

¹⁰ This account of the Denver program has been taken from a mimeographed statement, *Plan for an Enlarged Core Program in East High School*. Denver Public Schools, January 18, 1938. 10 pp.

the three-year period of the senior high school. The teachers of this course, however, recognized that many of the problems they believed should be included in a core program were not being given consideration. It was therefore decided to develop a new core program.

Starting in February, 1938, two hundred twenty 10B students, or six classes, were enrolled for the new core course. Teachers from various subject fields were made responsible. They plan coöperatively for the work of the six classes. Some assistance is given by other teachers. Each teacher of one of the six classes will remain with his group throughout the three-year period and serve as their guidance counselor. The time allotment in this new course is three hours per day in the tenth grade with a reduced amount of time in the eleventh and twelfth grades. The actual time allotment in the latter two grades is to be specifically determined later. These classes are scheduled in the afternoon in one wing of the building with the six teachers responsible for the instructional program making a schedule suitable to the kind of curricular material being dealt with at a particular time. In general, the plan provides for four days of each week devoted to the more formal class activities with the fifth day kept free for personal and group conferences, field trips, and coöperative teacher planning. The core work in the tenth grade will be assigned one unit of credit in English, one unit in social studies, and one-half unit in science or practical arts, according to the nature of the work done by the pupil. With this time allotment, tenth-grade students will be able to take at least two electives, as well as physical education, in addition to this core program.

The subject matter of the core course is related to the problems that society expects schools to present to youth. No attempt is made to classify the subject matter according to the usual subject-matter divisions. Instead, units are included on personal development, adjustment to the school program, family relations, consumer education, the effective use of the radio, and the like. Demands for increased skill in reading, writing, speaking, and the like are met as they arise by special instruction, but are handled as a part of the core program. An effort is made to provide experiences that will promote democratic living and that will help students during the tenth grade to see their relation to school, home, and civic affairs. According to preliminary plans, the tenth grade will emphasize personal and face-to-face relations; the eleventh grade will be concerned with larger social, political, and economic relations, giving particular attention to the contributions of the past, to the present, and to life within our own country; and the twelfth grade will deal with problems and issues in modern life and with the means of personal adjustment to these problems.

2. University of Wisconsin High School

The High School at the University of Wisconsin has been experimenting with a program that has several unique features. Believing

that the school should give more attention to the adjustment of youth to complex problems of present-day living, four constants were developed: education for community living, education for health, education for the use of leisure, education for vocation and college life.

The courses in health and community living meet for two or three clock hours per week in the sophomore and junior years, depending on program complexities. In the senior year the class in health meets two hours per week and that in community living one hour per week. The third constant, vocation and college life, meets one hour a week throughout the three years of the senior high school. The fourth constant, leisure time, has an irregular schedule that varies with the kind of work being done and with the schedules of the persons who conduct it. In this constant are included two hours a week in the tenth and eleventh grades, under a teacher of English. The student has time, of course, to carry the usual elective courses in accord with his special needs and interests.

This program has been unusually successful in securing a unity of subject matter and a functional emphasis because the program makes it easily possible to disregard usual subject-matter divisions. Teachers are entirely free to draw subject matter from any source in seeking solutions to problems. The very breadth of the constants, however, has made it necessary for the teacher in charge to secure the assistance of other teachers and of persons outside the faculty.

This program has been carried on with an experimental group of about twenty college-preparatory students in each of the three grades.¹¹ Now that the program is well organized and in its seventh year, careful studies are being made to evaluate the results. Although it is doubtful that the present program will become the constant portion of the offering for the whole school, the experience with it is already proving helpful in shaping future developments.

3. General Interest in the Core Curriculum

Many other attempts are being made to develop more effective programs of general education. The list of promising developments is much too long to justify mentioning even a few. Whole states have embarked upon programs for the development of a core curriculum for secondary schools. Since the inauguration of the Virginia state program, which used a series of major functions of social life to define

¹¹ This program was organized under the direction of the former principal, H. H. Ryan. For a more complete description see H. H. Ryan. "The experimental curriculum at Wisconsin High School." *Junior-Senior High School Clearing House*, January, 1936, 301-307.

the scope or breadth of the core curriculum, several states and many cities, counties, and individual schools have used a similar approach. No one pattern is as yet predominant. There appears to be increasing use, however, of the terms 'core curriculum,' 'core courses,' or 'core subjects' to describe the vehicle, the means, or that portion of the curriculum concerned primarily with the program of general education.

Recently Diederich has cited the core course as one of the major contributions of the Progressive Education Association's Eight-Year Study in the Thirty Schools. In discussing the core curriculum he says:

It is now fairly clear on what lines this development should proceed within the next few years. The culture-epoch approach, the mesalliance of history and English, simply does not work and has been abandoned by almost every school which has tried it. Instead, it seems wiser to orient the core work of the junior high school, and preferably of the elementary school as well, around the general question: "What things do we need and want, and how do we propose to get them, as individuals and as a society?" This includes material things, such as food, clothing, shelter, fuel, power, tools, basic materials, fabricated products, transportation, communication, etc.; intermediate things, like recreation, health service, money, credit, exchange, and the like; up to the spiritual values, like health, freedom, justice, scientific knowledge, love and beauty. It would include getting these things as individuals, as members of a family, as citizens, and as workers. No generation of mankind has ever provided these things in sufficient abundance to make anything like the good life possible for the majority of citizens. Unless these pupils do a better job than their forefathers, many of them can count on suffering deprivation of many of the elementary decencies of a civilized existence. They will have poor food, poor homes, poor family life, unwholesome recreation, poor health, exploitation, injustice, unemployment, and war. On the other hand, if every succeeding generation of children began early and earnestly to study how their society went about getting the good things of life, analyzed its mistakes and weaknesses, and began hopefully to think about better ways of getting these things, what a difference it would make within a few generations. The course of study would involve relatively little book-learning, compared with the present one, but much more prolonged and fruitful contact with the work of the world, endeavoring always to learn how things are done, and how they may be done better, and what are the obstacles in the way. The unquestioning admiration for the wonders of modern technology, which is a common outcome of most excursions, should be avoided; also the despair with which many socially minded teachers

view the mess we are in. The outcome desired is a hopeful awareness of the problems to be solved: to come to regard them as so many opportunities to make one's life a real service to mankind. . . .

The core course ordinarily occupies only two periods of the school day. An additional two periods are devoted to electives, including many of the so-called 'extra-curricular activities' on an equal basis with any other educative activity. Most of these electives can now meet only two or three times a week. Teachers who formerly thought this impossible are now finding out that it can be done, especially when their attention is focused not upon the mastery of a given body of content but upon the establishment of continuing interests and desirable personal qualities. The other two periods of the school day are commonly given over to physical education and free time. During this free time an effort is made to permit the pupil to develop his special interests, especially through work in the library, shop, and studio, and any other laboratories which may be available.¹²

4. Major Aspects of General Education in Secondary Schools

The following summary aims to present the major aspects of the program of general education that is being developed in our secondary schools. The summary is the result of an examination of the published descriptions of numerous programs, and of classroom visitation and teacher and student interviews in five California high schools that have given particular attention to a program of general education.¹³

a. The Method of Organizing the Program of General Education. In many secondary schools now revising their programs, general education is provided through the core curriculum, which may be defined as those aspects of experience in which planned provision is made for the participation of all students and from which students and teachers select the specific experiences needed by the individual pupil for effective living. The needed experiences are selected in terms of the interests, purposes, and maturity of the pupils. For example, one area of experience in which all students participate is 'home-living.' However, all students do not need the same training for home-living. The type of home in which they now live, or have lived, and the type of home in which they may live in the future will largely condition the

¹² Paul B. Diederich. *Contributions of the Eight-Year Study*. (mimeographed) pp. 4-5.

¹³ The unpublished study is on file in the writer's office. The schools included are the Burbank Senior High School, Burbank; the Carpinteria Union High School, Carpinteria; the Sequoia Union High School, Redwood City; and the Abraham Lincoln and the Eagle Rock High Schools of Los Angeles.

specific experiences that students will select, under teacher guidance, in order that they may achieve a satisfactory competence in home-living.

Thus the foregoing definition indicates that the program of general education gives attention to those areas of experience in which all students participate. Or to state it another way, general education includes all the major functions of human living, such as protecting life and health, making a home, conserving and improving material resources, coöperating in social and civic action, and expressing esthetic and religious impulses. Under this concept the curriculum consists of all the experiences the child has under the direction of the school. It is not merely a program of studies or a series of courses

b. The Purpose of the New Programs. There appear to be at least two major purposes in these programs.

The first purpose (in terms of the goals of education in a democracy) is the provision of the common training needed by all if the values and goals of democratic living are to be attained. Education in America has always held uppermost its social purpose and social goal. General education is designed to contribute directly to the achievement of this goal.

The second purpose can be stated in terms of improved plans of organization. The core curriculum, as an example, is a form of organization believed to be in harmony with the facts concerning the nature of the learner and the way he develops. It permits the use of the variety of activities needed to develop the child fully and to secure a unity of experiences. Thus, the new programs introduce a new organization in order to attain objectives long cherished but seldom realized.

c. The Nature of the Learning Experiences. If pupils are to develop proficiency in the various functions of human living, it follows that they must develop appropriate controls of conduct or modes of behavior. It is obvious that they must, therefore, have experience in the aspects of learning in which growth is desired. The mere performing of assigned tasks is not enough, children must develop their own plans; they must carry out their own plans; they must evaluate their activities, including the final results. Further, pupils must engage in a great variety of learning activities, such as research activities, discussions, interviews, oral and dramatic expression, experimentation, observation, construction, creative activities, surveys, and the like. In addition, these must be real experiences; the students must participate in and enjoy community activities. It is impossible to perform within the

four walls of the classroom, all the functions of human living with which the school should be concerned, and thus much use must be made of the community. The new programs of general education attempt to provide these kinds of learning activities.

d. The Scope and Breadth of the New Programs of General Education. The new programs frequently deal with all the major functions of human living, but some of them are still somewhat limited in the range of the areas of life considered. The most notable of these deficiencies are: home-making, which has vital experiences for boys as well as girls; conserving and improving material conditions; coöperation in social and civic action; getting a living; securing an education; enjoying recreation; expressing religious and esthetic impulses.

It seems doubtful whether some of the present practices of requiring as much as one-third to one-half, or even more, of the student's time can be justified in the light of the narrow scope of the work included.

e. Provision for a Carefully Planned Sequence. Not only should the program of general education be continuous from the nursery school through the junior college, but it should provide also a proper continuity of activities and learning experiences. Many of the new programs do provide for such continuity. Understandings, attitudes, skills, and modes of behavior are given attention when they are needed and when they will be used. Once taught, provision is made for their continual use. Thus common practices, such as teaching the writing of business letters in the ninth grade, friendly letters in the tenth grade, and formal invitations in the eleventh grade, are not followed unless the need is first recognized at the point indicated. Further to assure proper continuity and sequence, more careful records are being kept and students are continuing under the guidance of a single teacher for periods of two, three, or more years. Thus the continuity that has characterized only the languages and mathematics is being extended to other fields.

f. Variety in the Plans of Organization. It appears impossible to organize adequately in a single course the varieties of experience associated with the major functions of human living. In spite of efforts at integration, the program of general education usually consists of more than one course, or strand, of experience. At the present time there is considerable variation in the nature, plan of organization, and content of the major strands of experience. However, this does not imply that

a modern program of general education is developed by simply attaching a new name to old subject divisions. Materials within the new program are intended to be functional. They are logically organized in terms of pupil problems, rather than in terms of subject matter.

In many institutions the whole school is not reorganized at one time. In the early stages of developing a modified program it is common practice to have a small group of interested teachers start by co-operatively planning for a small group of children. In this way it is possible to demonstrate the feasibility of a particular form of organization for a specific school.

g. The Relation of the Usual Subjects to the Program of General Education. The usual specialized subjects have a definite and vital rôle in relation to the program of general education. (1) They often have a service relationship. The student engaging in the activities and experiences of the program of general education, finding a definite need for tools like reading and mathematics, is sometimes provided with 'service courses' from which he can gain assistance in building the needed skills. (2) It is common practice to find all the specialized departments, such as music, art, and commercial education, contributing to the planning and operating of the program of general education. In some cases subject names are retained in the planning for general education, although content is drastically modified. (3) The specialized subjects have a recognized and important responsibility in providing for the individual needs and interests of students beyond those developed in the program of general education. Probably one-third to one-half of the students' time in the newer programs is spent in activities related to special interests. Students planning to go to college are engaged in one field of activity, while students planning to enter vocations at the end of the secondary period are engaged in a different field of activity. (It is not meant, of course, that there are just these two large groups of specialized interests.)

h. The New Functions of Teachers. The following statements will serve to outline briefly the new rôle of the teacher.

First, a high level of competence is needed by those participating in this program. Not less, but more, scholarship is required. Further, teachers are forced to reinterpret their book knowledge in terms of practical everyday activities.

Second, all teachers, generalists and specialists alike, have a responsibility in planning the program of general education. Schools

frequently find they cannot guide children satisfactorily in carrying out the various functions of human living if the curriculum—that is, the learning experiences—is planned only by a social studies teacher or by a representative of any other single subject field. The learning experiences and activities needed to develop a satisfactory level of competence in performing the functions of human living can be better provided for if viewed through the eyes of specialists in each of the various fields represented on a high-school faculty.

Third, schools are giving up the idea some of them once held that any teacher can teach anything and everything. Teachers need training and preparation for the tasks they undertake. This discovery has frequently led to two practices: (a) the provision for coöperative teaching of some of the courses, thus permitting the specialist to come in when and where he is needed, and (b) the provision of in-service training programs to meet the demands of the new programs.

i. *The Inseparability of Guidance and Instruction.* The guidance program is frequently centered in one of the core, or basic, courses in the program of general education, and it is generally accepted that guidance must permeate the whole program if it is to be effective. Thus a teacher, rather than a specialized guidance worker, is responsible for the diagnosis of many of the student's needs, for group guidance, and for individual counseling. This does not imply, however, that specialists are not needed. Further, many schools are developing special techniques, such as longer school days, longer periods, long lunch periods, and the like, so as to give more opportunity for contact between the teacher and the individual student. Also, much attention is given to improved records, to interest diaries and other techniques for aiding the teacher in discharging her guidance function.

j. *The Nature of Evaluation.* Schools embarking on improved programs of general education are seldom satisfied to juggle blocks of subject matter or learning experiences. They continually evaluate the changes being made in boys and girls. Evaluation is made in terms of pupil growth in performing the major functions of human living or in achieving the objectives of the program. Recognizing that they are educating for intelligent self-direction, teachers are aiding students in the evaluation of their own behavior.

5. Implications for the College and University

If the colleges and universities are to work in harmony with the purposes and plans developing in these newer secondary-school prac-

tices and are to contribute to a continuous program of general education, several changes seem to be in order. Increasingly attention might be given to the individual and his needs for effective living. This would seem to necessitate having less concern for early specialization and more provision for a planned and unified program to replace the rather disordered system of electives and course offerings existing in many colleges and universities today. It would mean a carefully planned program of broad aim and scope as a substitute for the preprofessional courses in which students are frequently enrolled in spite of the fact that they had no intention of taking such work. Further, this planned program would draw upon subject matter from any field as needed and would provide the variety of learning experiences necessary for competence in living. Thus it will not be adequate to think in terms of the usual subject-matter patterns; instead, thinking must be in terms of the aims to be achieved and of the learning experiences that will contribute directly to those aims. Not that all subject-matter organization would be abolished, but that the materials, subject matter, and learning experiences would be so selected and organized as to contribute directly to a clearly defined goal. Materials will then find a place in the service of this program of general education because of their functional value rather than because they have been there for many years. Such a curriculum would deal with live issues, draw upon the experience of the past, and endeavor to vision the possibilities and trends in the future. It would eliminate much of the overlapping with earlier courses. It would go beyond the classroom and the library and instead of withdrawing youth from the life of the world would plunge them into numerous new aspects of it under expert leadership, so that they might grapple directly with its problems. If consideration be given to the character of the student group in American colleges and universities and to the rôle they will play in group life later, this seems to be the only sound course open in the building of an effective program of general education.

As in the secondary school, there appears to be no one best curricular plan. In fact, the variety of the secondary-school programs that entering college freshmen will have experienced presents a real problem to the college. Articulation on the basis of the individual student would seem to be the most hopeful solution. Material presented in this Yearbook on the growth and development of the human organism would seem to support the wisdom of shaping the program in terms of

the developmental pattern of individual students. This, of course, implies much less emphasis on printed course requirements for entrance to college and more use of college and secondary-school coöperation in planning programs and in securing information about the individual student.

The implications of these considerations are tremendous for the faculty of the college and university. A planned program of general education for effective living requires broadly trained specialists who see the relations of their specialties to daily life and living—specialists who can reinterpret their specialized and often bookish learning so that it will contribute to effective living now and in the future. Further, a planned program implies planners, and in this instance it would be a coöperative effort requiring the contributions of many specialists who would be willing to place more importance upon the growth and development of the individual than upon securing an increased enrollment in their own fields. Such a program requires much guidance and much contact with individual students. It requires more emphasis on learning rather than on the so-called 'teaching,' which is often done without regard to the learner or what is being learned.

There is no intention to imply that no college is doing what is here recommended. Undoubtedly many are. But there are also others that, like many secondary schools, are not providing an effective program of general education.

VI. EVALUATION OF THE PROGRAMS OF GENERAL EDUCATION

Most of the newer programs have not been in operation long enough to warrant a complete and adequate evaluation. However, it is encouraging that attempts are being made to check the claims on which they are based.

The Progressive Education Association Commission on the Relation of School and College, whose activities have already been mentioned, has recognized the necessity of careful evaluation of the work of the thirty schools. An evaluation staff was established under the direction of Ralph W. Tyler to help the schools state their objectives and to devise new-type instruments for determining whether these objectives had been achieved. The instruments developed have been used in many schools other than those in the Eight-Year Study. While the results of the work of the Evaluation Staff will not be available until

1942, some indication of the kind of instruments developed to date can be secured from a recent publication by Louis E. Rath¹⁴

Attempts are being made to study the college success of students from the thirty schools. While sufficient information for any general conclusions is not available, the first-year group did not suffer by comparison with students from regular school programs¹⁵ In fact, they appear to be at least as able as students from non-experimental programs in coping with the usual college program. However, since these experimental schools are attempting to do much more than prepare for college, further evidence of the achievement of added values is still awaited.

Wrightstone made one of the most thoroughgoing attempts at appraisal of practices in experimental high schools. His study involved the construction of new instruments of evaluation and the application of these and certain of the usual instruments to matched pupils in experimental and in conventional types of curricular programs. He attempted to appraise the development of students in terms of outcomes that he classified as intellectual, dynamic, and social-performance factors. Part of his conclusions follows:

In the fields of social studies, English, and art, evidence for the intellectual factors indicates that the experimental schools provide for equal and often superior achievement on the recall of facts and information, obtaining facts, organizing facts, and applying facts and principles. Evidence for dynamic beliefs and attitudes is definitely in favor of the experimental schools. In social-performance factors pupils of the experimental school exceed those of the conventional school in both the quantity and the quality of self-initiated and co-operative activities in classroom behavior. The various experimental practices for integrating and enriching the social studies, English, and art have not detracted from the usually measured outcomes; rather they have added increased proficiency in other major outcomes of instruction.

The majority of evidence in measured aspects of learning in the natural sciences and mathematics favors the integrating and vitalizing

¹⁴ *Educational Research Bulletin*, 17: March 16, 1938. (College of Education, The Ohio State University)

See also Professor Rath's "Appraising Certain Aspects of Student Achievement," being Chapter III (pp. 89-117) in "Guidance in Educational Institutions," *Thirty-Seventh Yearbook, Part I*, of this Society, 1938—*Editor*.

¹⁵ J. L. Bergstresser. "Evaluation at the college level in the Eight-Year Study." *American Association of College Registrars Bulletin*. 12: July, 1937, 335-42.

practices of the experimental, compared with the separated courses of the conventional, high schools. In the dynamic beliefs and social-performance factors of self-initiated and coöperative activities which are measured in this study, the statistical results point significantly in favor of the experimental schools. In intellectual factors the test results, while they are often not statistically significant, sustain rather generally the better performance of experimental school pupils in the recall and recognition of facts, working skills in obtaining facts, organizing facts, and applying generalizations to described events . . .

In attitudes toward personal and social adjustment, pupils in experimental and conventional schools show no clear-cut differences. The tests employed in this study are admittedly inadequate, but it is interesting to observe the similarity of pupil self-ratings on adjustment in both types of schools.²⁸

These results should be reassuring to those in the colleges and universities who have feared the outcome of the newer programs of secondary education. Both these studies support the belief that the product of these reorganized curricula are just as able as pupils from conventional schools in performing the tasks required of them on the college level. The additional values resulting from the experimental programs as shown by Wrihstone's study would be approved by most persons interested in youth as being not only desirable but also exceedingly important for effective living both in school and out.

The problem of evaluation, however, is far from solved and programs of general education need much refining. The widespread attention being given to the problem seems to forecast considerable modification of high-school programs of general education in the years ahead, and much sentiment in favor of new forms of coöperation between high schools and colleges and universities, to the end that a continuous program of general education may be provided from the kindergarten through at least the junior-college period—a program in which each of the agencies, regardless of level, will contribute efficiently and effectively to the development of competence in all aspects of living.

²⁸ J. Wayne Wrihstone, *Appraisal of Experimental High-School Practices*, (New York: Bureau of Publications, Teachers College, Columbia University, 1936. pp. 190-191, 193)

CHAPTER V

YOUTH IN THE COLLEGES

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I. INTRODUCTION

The emphasis upon college curricula designed to meet needs of youth goes back to the beginning of higher education in America. From the founding of Harvard in 1636, of William and Mary in 1693, and of Yale in 1701, the needs of youth and of society have been more or less stressed by colleges. These colleges developed in part after the pattern of European universities, but they gained vitality from the fact that they were established in response to community needs. As new needs arose, new courses of study were added to the curricula. Professional courses in law, medicine, engineering, and other fields gradually supplemented the more academic subjects designed especially for cultural development or mental discipline. By 1850, a pattern of so-called 'cultural' subjects had been fairly well established.

As the frontier expanded westward, new colleges arose in response to community needs and these looked to the older established eastern institutions for their patterns. The older colleges had acquired a prestige that was difficult to ignore in the formulation of a new curriculum. Furthermore, many of the faculty and board members of the new frontier institutions were alumni of the older colleges; they had learned to think of a college as an institution teaching subjects and using the methods of their own college generation.

In spite of this early tendency to fix and stabilize a college program, new demands of the expanding frontier called for new courses. The expansion of agricultural pursuits presented a need for college instruction and research in this field. Even before a body of knowledge was available as a basis for instruction, courses were taught. Professor Isaac P. Roberts, teacher of agriculture in Iowa State College, tells of his own experience with reference to the trend:

I began to tell the students what I knew about farming. It did not take me long to run short of material and I began to consult the library. I might as well have looked for cranberries on the Rocky Mountains as for material for teaching agriculture in that library. Thus, fortunately, I was driven to take the class to the field and farm, there to study plants, animals, and tillage at first hand. . . . I fell into the habit of taking the students to view good and poor farms; to see fine herds in the country round about, even though they had to travel in freight cars. I suppose I was the first teacher of agriculture to make use, in a large way, of the fields and stables of the countryside as laboratories . . . One day, being short on lecture material, I went into the fields and gathered a great armful of common weed pests. Handing them around to the class I asked for the common and botanical names, and the methods of eradication . . . This experiment provided material for a week's classroom talk and led me to place still more emphasis on field laboratory work.¹

This freedom of the early colleges to add courses in response to community needs was checked in the course of time. In view of the diversity of college programs and requirements there was a demand for a definition of a college or a university. Accrediting associations were formed to serve this function. The North Central Association of Colleges and Secondary Schools, organized in 1895, became the most powerful and influential. Over a period of years this body formulated, adopted, and attempted to enforce a set of standards to which all recognized institutions in the area covered by the Association had to adhere if the credits of their students were to be valued at par by member colleges. At the first meeting of the Association, President Jesse, of the University of Missouri, declared that, if a college is to secure unquestioned recognition, it must have (1) respectable entrance requirements, (2) well-arranged courses of study extending over a four-year period and embracing Latin, Greek, French, German, English, Mathematics, history, political economy, philosophy, physics, chemistry, and biology, (3) at least eight good instructors, (4) a good library and suitable buildings, including three laboratories, (5) enough income to maintain the instruction and equipment.²

In 1916 definite college standards were set by the Association. Revised in 1925, they defined a college in part as an institution "which

¹*Survey of Land Grant Colleges.* (United States Office of Education, Washington, D. C.: Vol. 1, 1930, p. 21)

²"Early organization and the first annual meeting of the Association." *North Central Association Quarterly*, 1: 1926, 5-6.

organizes its curricula in such a way that the early years are a continuation of, and a supplement to, the work of the secondary school and at least the last two years are shaped more or less distinctly in the direction of special, professional, or graduate instruction."³

In this manner the Association provided for an extension of general education but specified at the same time that such education should prepare students to take more advanced or graduate work. At no point in the standards is any concern shown for a type of general education that will assist that large body of students not going on for advanced work to live more effective lives as members of a community.

Standards such as these, although intended to serve as minimal requirements, set college programs according to a common mold. Needs of students and of society were submerged, if not totally forgotten. Instead, most colleges struggled either to remain or to be placed on the accredited lists. In view of the domination by the older, more powerful, and better-established institutions, each college found itself faced with the necessity of shaping its program after theirs, regardless of any special needs its constituents might have. Gradually, however, a mass of evidence has accumulated revealing the futility of efforts to make all colleges alike. Once again colleges are being freed to modify their programs in terms of student's and society's needs. Representative studies that have led to this change in emphasis are reviewed in this chapter. They furnish a basis for a better understanding of the changing colleges and the current emphasis upon general education to meet needs of modern youth more effectively than programs of the traditional college.

II. INFLUX OF STUDENTS STRAINS THE TRADITIONAL CONCEPT OF COLLEGE

Clearly the increasing college enrollments and the high student mortality rates summarized in an earlier chapter strained to a breaking point the generally accepted concept of the college. Everywhere colleges sought to make some sort of adjustment, although they were not so willing to change the courses of study. Freshmen week, orientation and survey courses, personnel officers, guidance services were gradually added in an effort to prevent or rehabilitate failures. An interest arose, too, in the collection of information concerning the nature of

³"Standards of accredited institutions of higher education." *North Central Association Quarterly*, 1: 1926, 19.

college students. A wide variety of traits has been studied. The results of such studies are most consistent, showing striking variations in the differences between students at different colleges and even more striking variations among students at the same institution. If college standards were established in the hope of making all colleges alike or of guaranteeing that each college graduate attain a specified level of understanding, knowledge, or culture, or reach the same point in his preparation for graduate study, the efforts have been utterly futile. Through continuous study a much more realistic picture of college students has emerged.

III. VARIATIONS IN COLLEGE STUDENT GROUPS

1. Age

In view of the general requirement of high-school graduation for admission to colleges, it might readily be assumed that the average age at which students enter different colleges is uniform. Such a generalization is far from the facts. For example, Heilman,⁴ in a report on forty teachers colleges scattered throughout the country, shows that the median ages extend from 17.59 years for one college to 19.29 years for another. Students entering the second of these two institutions are almost two years older than those entering the first. Likewise Cowen,⁵ in a survey of New York colleges, revealed a wide variation in the ages of students at different institutions. In one college (for men) only three percent of the entering students were under seventeen years of age whereas in another the percentage under seventeen was fifty-two. For the upper age range from eighteen to twenty-two, the percentages of entering students vary from sixteen at one college (for women) to eighty-six at another. The figures are so striking, little more need be said about them. Obviously when one speaks of "a college," or more specifically of "freshmen entering a college," one cannot have in mind a group of students with a fixed average age. In spite of all efforts to standardize, colleges persist in being different in this matter of drawing students of varying average ages; some attract the younger students; others the older. The question why they do so has not been

⁴ J. D. Heilman. "Report on the 1932-33 Testing Program of the Teachers College Personnel Association." Colorado State Teachers College, Greeley, Colorado: February 11, 1933 (mimeographed) p. 19.

⁵ Philip A. Cowen. *College Entrance Inquiry*. (University of the State of New York, Albany: Bulletin No 1007, Nov. 1, 1932) See especially Table 14 in the mimeographed material of the report.

fully answered; the answers are probably as individual as the colleges themselves.

More striking than the variations in average ages for freshmen in different colleges is the range and distribution of ages at a particular college. In any given college the age range of freshmen is likely to extend from sixteen or under to considerably above twenty. Clearly, the assumption that freshmen are of the same age or maturity level because they have all graduated from the high school is false.

The interrelations of such factors as age with other characteristics need definitely to be taken into consideration if a college is to have an adequate appraisal of student needs and abilities. Contrary to expectations on the part of layman, the youngest student is not handicapped scholastically in competing with his fellows. The evidence places him in a favored position. Odell's^e investigation is one of a number revealing that the younger students tend to make higher marks in both high school and college than those who enter at a later age. He collected data concerning 2,000 students who attended a large number of different high schools and colleges. A summary of his evidence appears in Table I. Starting with the group of students who entered college at sixteen years and running through those who entered at

TABLE I.—AVERAGE HIGH-SCHOOL AND COLLEGE MARKS FOR STUDENTS GROUPED BY AGE AT ENTRANCE TO COLLEGE

<i>Age at Entrance</i>	<i>Average High-School Mark</i>	<i>Average College Mark</i>
16	87.6	85.4
17	86.2	84.8
18	85.0	83.5
19	82.9	80.8
20	82.1	78.7
21	81.5	83.5

twenty-one, the average high-school marks decrease regularly for each successive year. The same trend is observable for college marks with the exception of the oldest group, whose scholarship is comparable to those who entered at eighteen, probably because of added maturity and experience. The younger students are likewise favored in completing their college courses in four years: of those who entered at the age of sixteen, 31 percent completed their course in four years; of the seventeen-year-old group, 32 percent; of the eighteen-year-old group,

^e Charles W. Odell. "The effect of early entrance upon college success." *Jour. of Educ. Research*, 26: 1933, 510-512.

25 percent; of the nineteen-year-old group, 21 percent; and of the twenty and twenty-one-year-old groups, 9 percent. To be sure, these data cannot be interpreted to mean that youth should be hurried along into college; they mean instead that the younger are the abler in terms of ability required to do satisfactory college work as it is usually offered and administered.

Although the youngest students may not be handicapped scholastically as colleges are at present operated, it does not follow that they are not handicapped at all. A few years ago Northwestern University assembled through scholarships a group of child prodigies, some of whom were only fourteen years of age upon entrance to the University. The experiment was not continued for long. These children had no difficulty in their scholarly pursuits; they were out of place, however, from the standpoint of physical and social development. With age, as with other factors, there is no single answer to the problem as to when students should enter college. It is important, however, for each college to study the ages of its students in relation to other characteristics in order to determine the nature of general education best suited to the group it is attempting to serve.

2. Scholastic Ability

Ever since the Army Alpha Examination was given to college students during and immediately following the War, attention has been called repeatedly to the wide differences between student groups and the enormous range of scores within any college group. As other tests of scholastic aptitude were developed especially for college students, the variations were even more striking.

Each year the American Council Psychological Examination is given at many institutions throughout the country. The writer analyzed particularly the data derived from the test given in 1932, which was supplied by the authors of the test. If the distributions of scores for students at four-year colleges are examined, they fall between the two extreme distributions shown in Figure I. Clearly, whatever this test is a measure of, the two groups are definitely unlike in the ability under consideration. The scores of less than 25 percent of the bottom group extend into the range of the top 75 percent of the highest ranking group. And yet, both groups are college students. Clearly, too, the extent to which the curricula offered at four-year colleges make demands upon the ability in question must be considered in determining the pattern of instruction. It is relatively easy to find high-

school groups that on the American Council Psychological Examination yield distributions of scores considerably above that for the lowest ranking college.

Only one inference can be drawn from such results if we are to be realistic about the matter. The educational program, insofar as it involves the abilities measured by such an examination, must be adjusted to the students who are being served. Actually, colleges and secondary schools have made such adjustments constantly, which they have not openly recognized. The teaching of college algebra or chemistry in the highest ranking college must be very different from that in the lowest ranking college. Algebra requires a high degree of proficiency in

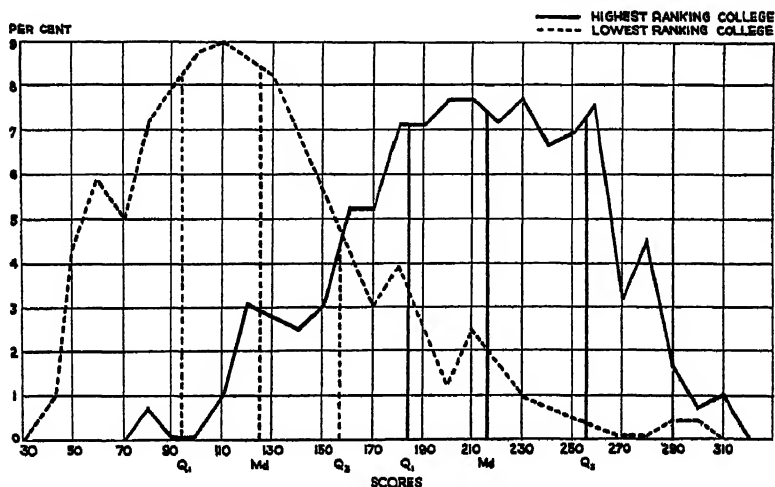


FIG. 1.—DISTRIBUTION OF SCORES ON THE AMERICAN COUNCIL PSYCHOLOGICAL EXAMINATION FOR TWO FOUR-YEAR COLLEGES

ability to use abstract symbols or the kind of ability that is appraised by the psychological examination. To say that the students in the two groups had learned algebra to the same degree, or to say that they can and should learn algebra to the same degree, represents sheer rigidity in educational thinking. It represents an insistence upon absolutes in college education that do not exist.

More amazing still than the differences between institutions on their psychological test scores is the wide range of scores within any single college. In the two colleges represented, for example, it is obvious that the lowest includes some students who rank in the top one fourth of the distribution for the highest. Furthermore, the highest includes some students who rank in the bottom fourth of the distribution for

the lowest. Each college, then, faces a problem of variability within the institution that has been talked about often enough, but has been the object of serious efforts to meet individual needs only within the last few years and even so with most inadequate results.

Similar data showing differences between colleges and variation within colleges in terms of psychological test scores might be drawn from a variety of sources. In the accumulation of evidence one further fact emerges. For some reason or other colleges tend to maintain a constant level in psychological test scores from one year to the next, as they do in the average age of freshmen they attract. Colleges, like individuals, do not change radically from year to year. The group entering next year will in most respects be much like those already in residence. At some institutions this observation has led to the deduction that the program for each year can be essentially the same as for preceding years; but even though the general level of abilities remains approximately the same, and even though the basic needs to be met do not vary greatly, problems change from year to year. Education, like society itself, cannot be static; it must evolve and improve. Unless a college is constantly seeking to find means of providing more effective education for its group and for the individual whom it is seeking to develop, it is not worthy of classification as an educational institution. Relatively constant scholastic abilities in student groups constitute no justification for complacency. No college, regardless of the level of student abilities it attracts, has yet provided the most effective program of general education of which the staff is capable. No college, regardless of its attempts to adjust courses to individual students, has fully succeeded in developing to the utmost the individual abilities with which it deals. No college, regardless of the resources at its command, has as yet derived a formula that all colleges can follow in building programs that are properly adjusted to the range of abilities represented in their student bodies. If such a formula were at hand, the task would be easy and at the same time much less interesting. Each college is faced with the problem of setting its program not only in terms of the variation in scholastic abilities as measured but also in terms of other factors, equally or even more important, on which students vary to the same or even to a greater degree.

3. Achievement

In setting graduation from the high school as a basic requirement for entrance to college, accrediting agencies assumed that the prepara-

tion provided thereby would be uniform for all college freshmen. Had they not studied reading, spelling, arithmetic, writing, geography, and other basic subjects in the elementary grades? Had they not supplemented this early education with three years or more of English, two of languages, one of science, one or two of history, one of mathematics, along with other subjects in the high school? They had, to be sure, but their growth as a result of these studies differed.

At Ohio State University some years ago, common subject matter tests were administered to freshmen and the results were compared with available norms.⁷ As many as half of the students made scores below the eighth-grade norms in operations with integers that involved problems in division. In other aspects of arithmetic the percentage below the eighth-grade norms varied from 4 to 40. On one of the tests 14 percent of the college students fell below the fourth-grade norms!

On the Monroe Revised Silent Reading Test for Grades VI-VIII, 7 percent scored below the eighth-grade median in comprehension and 30 percent in rate. One student scored at the fifth-grade level in comprehension; two at the fifth-grade level and one at the fourth-grade in rate. In English composition, as measured by several tests, 41 percent stood below college freshmen norms, 11 percent below ninth-grade norms, 6 percent below eighth-grade level, and 3 percent below the seventh. These figures can likewise be duplicated at many colleges and universities. They provide further evidence that all efforts to maintain rigorous college admission standards have failed. Even in the so-called 'basic tool subjects' on which the curriculum has centered, college students fall far below expectations based upon the assumption that graduation from the high school guarantees a certain set standard of competence.

A much more extensive comparison of the achievement of high-school and college groups is now available in the recent report of the Pennsylvania study, issued through the offices of the Carnegie Foundation for the Advancement of Teaching.⁸ Figure 2 is adapted from information supplied in the report. It shows the distribution of scores on an extensive general culture examination based upon subjects ordinarily included in a college program. The examination was given to

⁷ H. J. Arnold. "Disabilities of college students in certain 'tool subjects' and the relation of such disabilities to college standings." *Phi Delta Kappa*, 11: 1929, 169-174.

⁸ William S. Learned and Ben D. Wood. *The Student and His Knowledge*. Carnegie Foundation for the Advancement of Teaching: New York, 1938.

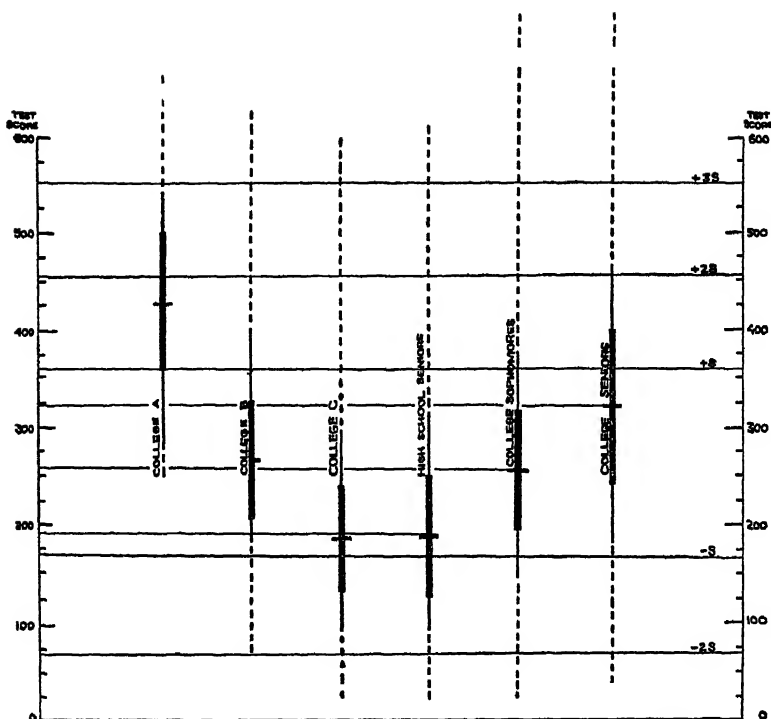


FIG. 2.—DISTRIBUTION OF SCORES ON A COMPREHENSIVE KNOWLEDGE TEST FOR HIGH-SCHOOL SENIORS, COLLEGE SOPHOMORES, AND COLLEGE SENIORS AND FOR THREE COLLEGES

college sophomores in 1930, to college seniors in 1932, and to high-school seniors in 1933-1934. The distribution of scores for those three groups is shown at the right of the chart. At the left are the distributions for three individual Colleges, A, B, and C. Cross comparisons can be made readily. More than three-fourths of the sophomores in College A rank in the upper half of the distribution of *college* seniors, while the distribution of scores for College C is essentially the same as that for *high-school* seniors. The authors of the study do not claim that the test given measures all the increments that accrue from college education. They state explicitly that "no one here concerned assumes that to measure knowledge is to appraise the full flower and scope of all that education implies."⁹ They point out, however, that many teachers have cherished so-called "intangibles" to be sought by the way, but sooner or later the confusion of these elements with knowledge has usually crowded them out. For after all, knowledge has hitherto been every educator's pro-

⁹ *Ibid.*, p. 67.

fessional stock in trade; his rod of authority." From the positive angle, *the test gains significance in that it covers many aspects of the usual college program.* The results reveal once more the astounding fact that some high-school students who have not studied college subjects know more about those subjects than do many college sophomores or even some college seniors. With the limitations of the test fully in view, the results remain significant. Neither high-school nor college graduation provides a guarantee of knowledge of information covered by the curriculum.

With the mass of evidence all pointing in the same direction as that just reviewed, how can colleges continue to insist that there is a basic body of information, of subject matter that all students must acquire? Or if they persist in this belief, why is it that they have not based admission and graduation requirements upon the standards they verbally accept? If pressed on this point, most college authorities would insist that there are other values aside from knowledge increments, but at the same time they fail to discover, analyze, and provide for these or to 'credit' students with achievement in them toward graduation.

Before turning to a consideration of some of these other values, reference needs to be made to another aspect of achievement expressed through acquisition of knowledge. Up to now little attention has been centered upon the problem of student growth during the period of residence in college. To be sure, college authorities and faculties have talked at length about growth and development. They have, however, little tangible evidence to show the effects of instruction on the growth that has taken place. By administering the long comprehensive examination to college sophomores and to the same group two years later as college seniors, Learned and Wood¹⁰ were able to check the progress of individual students. Figure 3, reproduced from the Carnegie report, gives the initial standing of two students in terms of total score and of scores on various parts of the examination. Both students were graduates in engineering in a college that rated near the top on the examinations. The scores are plotted in relation to the distribution of sophomore scores and derive meaning from that relation. One of the students is below the sophomore mean on initial and final scores in all subjects that the instrument covered, with the exception of mathematics in which his final achievement during the senior year surpasses the initial or sophomore year achievement of the second student. In other words, as a senior he still ranks far below the sophomore ratings of the second

¹⁰ *Ibid.*, p. 34.

student in all subjects except mathematics. Not only did the second student rank higher as a sophomore than the first did as a senior; he also made greater gains. On only one test, vocabulary, did both students fail to gain. Regardless of what the college in which these students were registered has to say about its standards, it is obvious that it accepts students with markedly different levels of achievement. Likewise these two sharply differing students received the same degree. Both began their careers as college graduates and as engineers. From this point on, they gain recognition in terms of the contributions they make to society either as scholars or as practical men of affairs and in terms

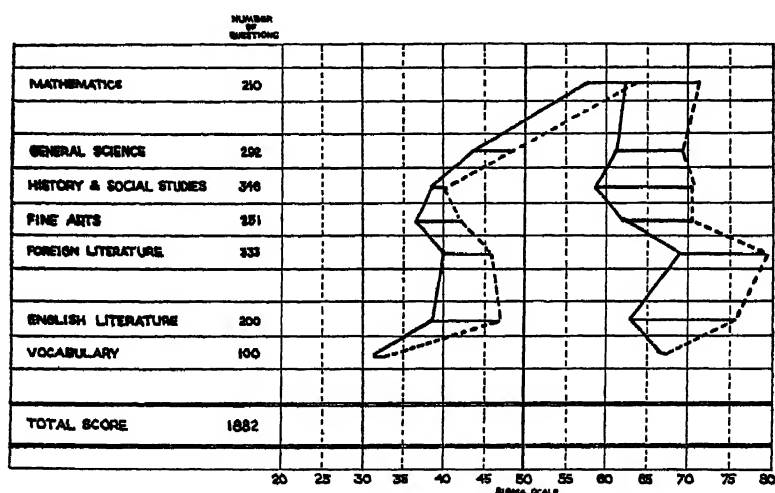


FIG. 3.—GROWTH IN KNOWLEDGE OF TWO STUDENTS FROM THE SOPHOMORE YEAR TO THE SENIOR YEAR

of personal relations with their fellowmen. Neither persistence in making such contributions nor ability to establish such satisfactory relations was measured, nor can they be revealed in the college-test profiles. Nor have the colleges given special recognition to such characteristics when deciding whether a student should be granted 'distinction,' 'pass,' or 'failure' in a given course or whether he should be granted a degree.

The essential implications of such individual records are summarized by the authors of the report we are citing as follows:

Each individual has some level peculiar to himself at which his education in any given subject must begin. Average levels, like the 'average man' do not exist for practical education. There exist only different starting points from which alone progress is possible. This suggests that instead of expecting the members of a college class to

conform to an average, we might better arrange circumstances so that each student could make full use of what he has learned and could advance from the point where he really stands. His permanent gains derived from schooling would thus be substantially increased.

This suggestion is reinforced by the relentless operation of what might well be called the first law of learning: Whatever a man learns, he must learn for himself. In Pennsylvania, certainly, neither professors nor other institutional agencies have been able to do students' learning for them. Although they have divided their students into year-groups and classes, required their attendance on instruction, marked their recitations and tests, and granted them a corresponding number of 'standard' credits, many of these students, in spite of college diplomas, are nevertheless no better informed on the subjects tested than a large number of pupils still in high school; almost one-sixth even lost ground academically during a two-year trial period. If it be held that learning in its many forms is the chief prerequisite for education, this situation should be dealt with.¹¹

The Pennsylvania study has been criticized rather sharply by many because the limited tests measured almost entirely stock of information. The authors of the report are the first to recognize the limitations of the tests used. They may, perhaps, give the achievement as measured more weight than others who deal with the problem of higher education; they may, too, draw inferences concerning the matter of selection of college students that certainly not every educator would be willing to accept. But such inferences go beyond the data. They represent the best judgment of those who have worked with the accumulated facts. There are certainly limitations of the study that must be fully recognized. Nevertheless, in spite of all such limitations, the results relate to one of the outcomes of college instruction that has long been regarded as important. They must be interpreted in the light of conditions as they are. They warrant close study by any one who is honestly interested in the contribution that colleges can make to the development of youth. On no other outcome of college instruction has so much information been gathered. To those who regard other outcomes as more significant socially or who would measure educational growth by some other criterion than that used in the Pennsylvania study, the report should serve as a definite impetus for further study. No more significant contribution to a better understanding of higher education can be made for the time being than to bring together evidence concerning the growth and de-

¹¹ *Ibid.*

velopment of students in characteristics other than the knowledge of facts as measured by Learned and Wood. Such data would strike at the core of the problem, at the *raison d'être* of a college.

4. New Observations on Permanence of Learning

Some efforts have been made at Ohio State University under Tyler's direction and at the University of Minnesota through the offices of the Committee on Educational Research, as well as at other scattered institutions, to measure progress toward the achievement of outcomes in addition to the accumulation of knowledge. The meager evidence that has accumulated indicates that other outcomes aside from knowledge of facts need to be appraised in arriving at a complete picture of the variation among college students. At Ohio State an achievement examination was devised to measure the following objectives of instruction:¹² (1) familiarity with the terminology of zoölogy, (2) the ability to recall the name of a structure pictured in a diagram, (3) the ability to recognize the function of a structure, (4) the ability to recall other facts of zoölogy, (5) the ability to apply principles of zoölogy to situations new to the students, and (6) the ability to interpret experiments new to the students. The test was given at the beginning and at the close of the course, and again one, two, and three years later to students who took no advanced work in zoölogy. The results in terms of the first four informational objectives revealed a general trend similar to that found in other studies: the students over a three-year period forgot, on the average for single tests, up to 90 percent of what they gained during the course. On tests of the last two objectives, however, students did not forget; they continued to improve over the three-year period. Although this is only an exploratory study, it reveals possibilities that need to be investigated further. It is entirely possible that current tests are not yielding observations of more enduring values that need to be considered by colleges in studying variations among college groups and in formulating plans for general education.

5. High-School Rank

Among the single measures that have been used as a basis for predicting probable success in college, rank in the high-school graduating class in scholarship over a four-year period has repeatedly been shown

¹² James E. Wert. "The Retention of Achievement in College Zoölogy." (Bureau of Educational Research, Ohio State University: Columbus, 1935, mimeographed)

to have the highest predictive value. On this measure as well as on psychological and achievement tests there is considerable variation between colleges. An example taken from Cowen's study¹³ may suffice. For all New York colleges included in the study, 69 percent of the students ranked in the highest two-fifths and 10 percent in the lowest two-fifths of their high-school graduating classes. By and large, the colleges have put into operation a rather rigid system of selection. The figures for all colleges, however, are misleading if applied to any single college, as the following comparison readily shows.

<i>High-school Scholarship</i>	<i>Percentage of Students in</i>	
	<i>College A</i>	<i>College B</i>
Top fifth	98	16
Second fifth	2	24
Third fifth	0	20
Fourth and lowest fifth, combined	0	40

Other colleges fall between these two extremes. Once more the evidence is clear. In terms of a background of high-school scholarship these colleges attract distinctly different student material. With facts such as these now readily accessible, it can no longer be assumed that the requirement of high-school graduation brings to a college, students of the same or even of comparable degrees of achievement. College A draws 98 percent of its students from those who rank in the highest fifth of their high-school graduating classes, whereas College B attracts only 16 percent of the students from this group.

6. College Marks

College faculties express their judgment of student achievement in terms of marks. These, in turn, are used as a basis for determining whether students fail, are promoted from one level to the next, or are given honors. Sometimes there is no or little relation between the actual achievement of students in a class and the marks they receive. From the investigations conducted over a period of years, the fact of variability among colleges again stands out. From a survey of higher education for the United Lutheran Church, the variation in the percentage of all marks that fall in different quality groups can be illustrated by the distribution for three colleges, R, S, and T.¹⁴

¹³ *Op. cit.*

¹⁴ R. J. Leonard, E. S. Evenden, E. B. O'Rear. *Survey of Higher Education for the United Lutheran Church in America*. Volume I. (Bureau of Publications, Teachers College, Columbia University: New York, 1929. p. 504)

Although these distributions depend in part upon a system of transmuting percentage grades into letter marks, the differences between the institutions are clear. With evidence of this nature at hand one can readily guarantee that any high-school graduate in the country could emerge with a bachelor's degree if he would pay tuition fees and attend classes for four years at one of several colleges that might be named. College T, from the figures supplied by the investigation, gives no marks below C, and College S makes 96 percent of its marks equivalent to A or B. In the total picture of higher education in the country, these particular colleges are relatively insignificant. Similar variations, however, can be found among colleges that are well known.

As a matter of fact, the marks assigned by different departments within any given institution vary greatly. Instructors in the same department likewise differ to an amazing degree in the standards they

Marks	Colleges		
	R	S	T
A	14.1	66.5	45.3
B	28.5	29.5	49.4
C	39.6	3.6	5.3
D	16.8	0.4	...
E	0.8
F	0.2

adopt for successful or passing work. As long as they do, it is not possible to speak with finality on what college standards are. Each teacher feels quite certain in his own mind that he *knows* what satisfactory college work is. Few college instructors, to date, have taken seriously the facts with regard to variations in marking practices. These facts are accepted where they are known almost with a shrug, as if to say: "That may be true, but I still *know* when a student has done satisfactory college work."

7. Retention of Students

Colleges differ likewise in their ability to retain students. A study of factors affecting the elimination of women students from Bates, Bucknell, Carleton, Colby, Denison, and Hillsdale Colleges¹⁵ indicated that in this small group of liberal arts colleges the percentages of students who withdrew ranged from 14 in one college to 72.5 in another.

¹⁵ Ruth V. Pope. *Factors Affecting the Elimination of Women Students*. (New York: Teachers College, Columbia University. Contributions to Education No. 485, 1931)

In the more recent investigation of twenty-five universities¹⁶ the percentages of students leaving the university during or at the end of a four-year period without obtaining the degree range from 45.2 for Pennsylvania State College to 85.2 for the University of Detroit. In view of the general tendency for college curricula to be set up in four-year spans, it is at least within the range of probability that colleges that lose a large percentage of students are not adequately meeting their needs. On the other hand, colleges with low percentages of withdrawals are not thereby justified in assuming that they are meeting adequately the needs of students. Other factors may be contributing to their holding power. Regardless of the explanation, colleges differ greatly in their ability to retain students.

Within a single institution similar variations exist. At Minnesota, for example, West¹⁷ has shown that for different schools the percentage of each entering group completing a course in four years ranged from 16.3 to 54.5. At Ohio State¹⁸ the percentage varied from 14 to 55.7. Similar variations have been revealed at Chicago and elsewhere. In other words, the same factors that influence the holding power of separate colleges operate within the divisions of a single institution. These factors are not usually taken into consideration in making plans for general or more specialized education.

8. Reasons for Attending College

Colleges differ, too, in the reasons why they are selected. At seven denominational colleges where students designated the factors that influenced their choice of an institution, the results are not alike for any two of the colleges. The following figures (Table II) reveal the variations at a glance.¹⁹ Although these data are crude, the differences are sufficiently great to show that student bodies differ widely in their reasons for selecting colleges. Again these are facts of which colleges may be aware, but as yet have refused to recognize or plan for.

One college²⁰ was sufficiently daring to ask its students the question:

¹⁶ J. H. McNeely. "College entrance ages." *School Life*, 23: 1937, 31.

¹⁷ R. M. West. *Student Survival*. (Report of the Survey Commission. VII. Minneapolis: Bulletin of the University of Minnesota, Vol. 28, No. 4, 1925)

¹⁸ Harold A. Edgerton and Herbert A. Toops. *Academic Progress*. (Columbus: Ohio State University Press, 1929)

¹⁹ Ellis M. Reeves. "Which college?" *Jour. of Higher Educ.*, 3: 1932.

²⁰ Emma Reinhardt. "Reasons given by freshmen for their choice of a college." *School and Society*, 47: 1938, 511-512.

"If you had your own entire choice would you go to some other college?" Of the students in attendance during 1930-1931, 48 percent said "yes"; of those in residence during 1935-1936, 50 percent, or one half of the group, said "yes." As reasons for wishing to move to another college they gave: new surroundings, social advantages, course wanted, larger school, better faculty, athletics, and fraternities and sororities. Difficult as it is for a college to face such facts, the awareness of them may provide a stimulus to improve the education being offered in that institution. It is encouraging to note that students as well as faculties are at present groping to find an educational program that is best adapted to student needs and interests.

TABLE II.—FACTORS INFLUENCING THE CHOICE OF A COLLEGE

<i>Factors Influencing Choice</i>	<i>Percentage of Students Designating Each Factor</i>	
	<i>Lowest</i>	<i>Highest</i>
Awareness of the institution	36	70
Acquaintance with other students attending	31	50
Parental wishes	33	62
Influence of friends or relatives	24	50
Scholarship or other financial aid	22	31
Church affiliation	9	36
Interview with representative of the college	10	35
Subject-matter interest	11	33
Literature from the college	7	26
Renown of the faculty	5	24

9. Attitudes

The instruments for observing attitudes of students are not as dependable as tests of information. Unlike the latter, students can readily indicate attitudes they think are expected of them rather than their real attitudes. However, such observational techniques are sufficiently accurate for group comparisons. Wherever they have been used, they yield similar results with respect to variability. The study by Thurstone and Chave²¹ on attitudes toward the church reveal wide differences in this respect among student groups.

Rundquist and Sletto,²² in studying the problem of personality in

²¹ L. L. Thurstone and E. J. Chave. *The Measurement of Attitude*. (Chicago: The University of Chicago Press, 1929)

²² Edward A. Rundquist and Raymond E. Sletto. *Personality in the Depression*. (Minneapolis: University of Minnesota Press, 1936)

the depression, constructed scales to measure general morale, inferiority, family relationships, respect for law, economic conservatism, and attitude toward the value of education. These were administered to college and high-school students, high-school teachers, and groups of unemployed adults. Although on five of the six scales the scores were poorer for the less well-educated, the differences between the groups are negligible compared with the overlapping of scores between groups and the wide variation within each group. On these scales it is clear that college training does not set the group apart in their adjustment from high-school or unemployed adult groups; in other words, college students are not distinctly different from non-college groups. The pattern for attitudes with respect to variability and differences seems to follow that for achievement in subject-matter knowledge.

With a growing emphasis upon the measurement of outcomes of instruction other than, and in addition to, the acquisition of information, a series of studies showing changes in attitudes during a course or over a period of college training is particularly significant. An investigation reflecting the changes in attitudes of students over a four-year period was reported recently.²³ Thurstone's attitude scales on war, the Negro, influence of God on conduct, reality of God, and the church were administered to freshmen and to the same group four years later as seniors. On all scales, with the exception of that on the Negro, the students moved toward a more liberal position. But more significant than these relatively minor shifts is the fact that on all scales the variation of the senior group is just about as widespread as for the freshman group. In other words, students become no more alike in their attitudes as a result of their college training than they do in the amount of knowledge acquired.

Another study of importance in this connection was made by Harter²⁴ to determine the effect of training upon the belief in certain popular misconceptions. Forty items were included in the scale of which the following are samples:

People with greenish eyes are not as trustworthy as people with blue or black eyes.

Long slender hands indicate an artistic nature.

Women possess a power of intuition absent in men.

²³ V. A. Jones. "Attitudes of college students and the changes in such attitudes during four years of college." *Jour. of Educ. Psychol.*, 29: 1938, 14-34.

²⁴ R. S. Harter. "Effect of training upon the belief in certain popular misconceptions." *Jour. of Applied Psychol.*, 21: 1929, 119-129.

On the initial testing before training, the number of items to which Temple University students agreed ranged from 0 to 29 with a mean at 9. After the training period the mean dropped to 3.2, but the range still extended from 0 to 22. College students seem to cling tenaciously to certain common misconceptions. Clearly not all their beliefs have been influenced by higher learning.

10. Interest in Religion

Coming with widely differing backgrounds, college students naturally differ in their religious interests, habits, and beliefs. Cowley,²⁵ in summarizing the findings of the Connecticut Survey Committee on transition from school to college, involving 3167 students in 39 colleges and 103 secondary schools, comments editorially as follows:

The outstanding facts concerning student religion discovered in this investigation are these: one-third of the students entering college as freshmen have no interest in religion, find no value in it, and could get along without it; a second one-third state that although religion does not mean much to them for the present they believe that later in their lives it may become vital; the remaining third express their interest in religion and testify that they find it helpful or a vital part of their lives.

Among colleges of the same denomination it is sometimes assumed that students hold common beliefs, particularly on religious issues. To note the validity of this assumption, Cunningham²⁶ gave a religious placement test to 2948 students entering 36 Catholic colleges. With a total possible score of 152, the highest scores for the different groups ranged from 115 to 144, the lowest from 5 to 79, and the medians from 51 to 117. From the standpoint of religious beliefs and interests, these colleges are homogenous in name only; clearly, the students do not hold the same religious beliefs. They differ widely from one Catholic college to another.

Similarly, variations in church membership for students at the same denominational colleges have been observed. Among 35 Methodist colleges, the percentage of the student body holding membership in the Methodist Church varied from 33 at one of the institutions to 81 at another.²⁷ Among 13 United Lutheran Colleges, the percentage of

²⁵ W. H. Cowley. "Student religion." *Jour. of Higher Educ.*, 8: 1937, 226-227.

²⁶ W. F. Cunningham. "Freshman Religious Placement Test." *Catholic Education Review*, 36: 1937, 274-283.

²⁷ Floyd W. Reeves, John D. Russell, and others. *The Liberal Arts College*. (Chicago: The University of Chicago Press, 1932, p. 408)

Lutherans in attendance varied from 26 to 94.²⁸ Among 14 colleges affiliated with Disciples of Christ, the percentage of students who indicated their preference for the church with which the college is associated varied from 33.8 to 85.6.²⁹ It seems, then, that regardless of the denomination that sponsors the college, students' religious interests and affiliations are not the same, as is so often supposed. If in colleges influenced by a common religious faith it is not possible to find groups of students of like beliefs after the homes, the church, and frequently the schools have collaborated for twenty years, more or less, to develop an acceptance of a common creed or dogma, *it is improbable that a student group alike in any single characteristic could be brought together under any conditions.*

11. Other Student Characteristics

Were it not for limitations of space in the Yearbook and lack of inclination on the part of the Committee to enlarge further an account of youth in colleges, this summary might be extended to include other representative studies. Groups of colleges have been scrutinized from almost every conceivable angle. Among other student characteristics not considered here are advice sought, number of courses taken, major subject pursued, pattern of subjects chosen, credits earned, distance travelled to go to college, nationality and race, occupations of parents, social and economic backgrounds, previous preparation, occupational and recreational interests, number transferred from other colleges, study habits, and so on. From the various studies these facts emerge over and over again.

1. Students in any given college differ greatly.

2. In any and every characteristic college students overlap high-school students, non-college adult groups, and in many instances, even elementary-school children.

3. Colleges differ and may be distributed in a manner similar to distributions of individuals within a group; that is, in average scores or ratings there is a wide range between the lowest and the highest, and for large groups of colleges the distributions tend to be symmetrical.

IV. College Standards

Striking consistency such as this merits attention; so much the more so because the evidence now suffices to alter greatly the usual concept

²⁸ R. J. Leonard, E. S. Evenden, E. B. O'Rear. *Op. cit.*

²⁹ Floyd W. Reeves and John D. Russell. *College Organization and Administration*. (Board of Education, Disciples of Christ, 1929)

of 'a college.' The Committee, after examining the records, is ready to state that *there is no student characteristic for which a uniform college standard exists*. Fixed standards, definite lines of demarcation between college and non-college student material are unreal and arbitrary. College standards are relative. They vary not only from college to college but also from department to department within the same college, from instructor to instructor within the same department, and from one year to the next for the same instructor. Such standards have reality only in the minds of men. They are interpretations of individual and personal experiences. But no matter how college standards arise, no matter how strenuous the effort has been to enforce them, there is in reality only one requirement universally accepted by American colleges and that is graduation from high school. So overwhelming is the evidence leading to this conclusion that a college might well be redefined as an educational institution for youth with a high-school certificate.

That is not to say that colleges should no longer be selective institutions. Quite on the contrary, colleges are, and must be, selective in the students they serve. Each college is now selective, as is evidenced by the highly individual nature of its student body. It serves a group that in many respects is strikingly different from student groups in other colleges. To be sure, the criteria for selection are not the same. High-school records, patterns of high-school courses, psychological examinations, entrance tests, finances, availability of the college are merely a few of the bases for selection that are effective in innumerable combinations. Certainly no one knows all the reasons why each college continues year after year to select or attract the kinds of students it enrolls. *Each college, however, should try to recognize the factors operating to produce the uniqueness of its student group and provide educational opportunities accordingly*. And fortunately there is a growing self-consciousness on the part of colleges in regard to this matter. The question is no longer one as to who should go to college. It is, instead, to which college and why?

V. THE RECOGNITION OF INSTITUTIONAL INDIVIDUALITY BY ACCREDITING AGENCIES

Fortunately too, this individuality of colleges is being recognized by accrediting agencies. No less a body than the North Central Association in its recent revision of policy with respect to accreditation took a definite stand on the matter. In one of the monographs based upon the

investigation conducted for the Committee on Revision of Standards, Haggerty pointed out that

The weakness of conformity is that it cannot implement a future that is different from the outposts of the present. The best it can do for progress is to increase acceptance of the best practices of any given time. It can improve the status of weaker units by establishing standards of excellence at or near the frontier of superior thought and action. Before the need for new ways of thinking and for better modes of action, the spirit of complacency stands helpless, though seldom humble or ashamed.³⁰

The new policy sought to avoid this weakness. The term 'standard' was eliminated from the statement of policy and it was planned to recognize institutional individuality fully. One section of the manual reads as follows:

In its accrediting procedures the Association intends, within the general patterns of higher education, to observe such principles as will preserve whatever desirable individual qualities member institutions may have. While it is necessary to emphasize certain characteristics that are recognized as basic . . . it is regarded as of prime importance also to protect such institutional variations as appear to be educationally sound. Even in these basic matters it is clear that considerable divergence from average or optimum conditions may occur without perceptibly detracting from the essential educational worth of an institution. Uniformity in every detail of institutional policies and practices is believed to be not only unnecessary, but undesirable. Well-conceived experiments, aimed to improve educational processes, are considered essential to the growth of higher institutions and will be encouraged.³¹

If this policy is actually carried out in practice by the Association, it represents a new charter of freedom for the colleges. At the moment it is still too early to predict the effects of this move upon the college of the future. It is clear now that no other policy could possibly grow out of a consideration of available facts.

VI. COLLEGES DESIGNED FOR THE STUDENTS

Colleges have been striving in recent years to make adjustments in line with conditions as they exist in higher education. During the past ten years colleges have learned much about themselves. Each college

³⁰ M. E. Haggerty. *The Educational Program* (Chicago: The University of Chicago Press, 1937)

³¹ *Revised Manual of Accrediting*. (Chicago: Commission on Institutions of Higher Education, North Central Association, 1938, pp. 2-3)

was inclined—not without assistance from accrediting agencies, to be sure—to look to the practices of other more eminent institutions in deciding upon its course. The older, more firmly established colleges that everyone regarded with esteem had made notable contributions to American education. In charting its course by the compass set at these institutions, each college was inclined to overlook the opportunities for making a unique contribution to the education of students enrolled on its campus.

The tide is slowly turning. Colleges are again searching for the needs of their students in relation to society, which, after all, established the roots from which higher education in this country developed and grew. At times now one finds a college that is performing its task in truly exciting manner. The chapters that follow provide illustrations of such institutions. Taken together, they reveal a more realistic approach to college problems. Liberalization of entrance requirements that recognizes a single pattern of high-school courses as no longer essential for college success; steps taken to achieve an essential unity in courses of study through the introduction of survey courses, through changing convictions regarding patterns of preprofessional education, through the breaking down of subject matter and departmental lines, and through a greater emphasis upon free election under guidance; greater emphasis upon the needs of growing individual students; and experimental departure from the four-year college unit provided through the junior and general college movements and through the adoption by seventeen institutions of a new four-year college incorporating the upper two years of the high school and the first two years of the college—these and other steps are all symptoms of a deep-seated unrest concerning the effectiveness of the college. Colleges are now in a position, as they have not been in recent years, to reexamine their objectives and underlying assumptions, to study constantly their students' needs, and to reformulate a program of general education that meets these needs and is consistent with the democratic ideal.

CHAPTER VI

YOUTH AS A COMMON CONCERN OF HIGH SCHOOLS AND COLLEGES¹

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I. THE BASIS OF COMMON CONCERN

The knowledge of the physical, mental, and social development of youth, combined with an awareness of the nature of the decisions that youth must make, is highly significant for both the high school and the college. With such information, institutions at both levels can plan programs and organize advisory services so as to meet more completely the educational needs of youth. High-school officers realize more and more that their responsibility for the welfare of the student does not cease with the signing of his diploma. They see in many instances that graduation neither marks the completion of a student's general education nor signifies his fitness for a position in a society that at this stage in his development has little to offer him by way of employment. The high school must, therefore, aid its graduates in making critical self-appraisals so that they can decide intelligently whether to go to college, to secure technical training, to take up a trade, to seek employment immediately, or to follow some other line of endeavor. The college shares this interest and responsibility for the welfare of the student in that it too is concerned with the potential abilities, aptitudes, and plans of the high-school graduates. Both the high school and the college have a common concern that each individual shall reach his maximal level of achievement in terms of intellectual development, social competence, and integrated personality.

To serve the best interest of each student, the colleges must recognize not only his particular needs but also the fact that they themselves differ from one another in their capacity to meet needs of different student groups. Some colleges, as shown in Chapter V, set standards of achievement in their programs that can be reached only by students of

¹ The writer is indebted to Mazie Earle Wagner for contributions made to this chapter.

superior scholastic abilities. Others, by far the greater number, adapt the level of their work to students of average competence. The presence of any large number of misfits in either type of college program makes for unhappiness on the part of the student and for a waste of time and energy by both the students and the institutions. The selection of students whose abilities and interests are consonant with the purposes and program of the college becomes a matter of paramount importance. The differentiated abilities of students on the one hand, and the differentiated programs of colleges on the other hand, give rise to a mutual responsibility on the part of the high schools and colleges for the educational welfare of each student.

II. FACTORS COMPLICATING COÖPERATION BETWEEN HIGH SCHOOLS AND COLLEGES

The problem of achieving a close coöperation between the institutions at these two educational levels is complicated by a number of factors, three of which especially may be noted.

First, some colleges have neither defined their aims clearly nor determined to what levels of student aptitudes and abilities their programs are best adapted. Moreover, under the pressure of limited budgets, many colleges have resorted to questionable methods of high-pressure recruiting in order to maintain a desired numerical level of registration without regard to aims, abilities, or needs of the students they admit.

Second, the transition from the high school to the college represents a break in the educational experience of the student that is wholly artificial. Generally, there is neither unity nor continuity in the curricula at the two levels. Methods of instruction in college are usually new and not always adapted to the needs of entering students. New social relationships must be established, and new habits of living must be formed. This interruption of the continuity of the student's education comes at a time when he is socially extremely sensitive and is not fully established in his emotional make-up. There is no sound basis, either in the psychological characteristics of the student or in his biological development, for this sharp break. There is, moreover, no precedent for it in the educational system of any other country, including those whose systems of education are the products of many centuries of development.

Third, the high schools generally have neither the trained personnel nor a command of the techniques essential to a reliable diagnosis of the

aptitudes, interests, abilities, achievements, and personal qualifications of students. Such beginnings in the field of guidance as gave promise of affording competent diagnostic and guiding services have been retarded or wholly eliminated from the high schools for financial reasons. The real worth of guidance was not sufficiently recognized to conserve it under the pressure of economic retrenchment during the depression. Data published in 1932 by the United States Office of Education² indicate that an impressive percentage of the high schools claimed to provide personal and vocational guidance.

It must be borne in mind, however, that these data represent predepression practices; and further, that each school made its own interpretation of the guidance services it was providing. It is common knowledge that many of these limited services have been even further restricted or completely eliminated during the last eight years.

In consideration of the common interest on the part of high schools and colleges in youth who finish the high school, and of the factors that have limited the coöperation between the levels, it is desirable to consider further the means that are being, or may be, used to improve the relationships of the two types of institutions with reference to (a) the guidance of students by the high schools and the selection of students by the colleges, and (b) the articulation of the programs at the two levels to make for greater unity and continuity of educational experience on the part of the student.

III. PRECOLLEGE GUIDANCE OF YOUTH

1. The Need

It should be explained at this point that the writer uses the word 'guidance' not out of preference, but because it is widely accepted at the secondary level. Counseling seems to be more descriptive of the relationship that should obtain between the student and his advisers in that it implies an interchange of opinions, a mutual advising, that is not inherent in the meaning of guidance.

The need for guidance at the precollege level is emphasized by current reactions to the unethical practices that are prevalent in student

² William C. Reavis. *Programs of Guidance*. (National Survey of Secondary Education, United States Department of Interior, Office of Education Bulletin No. 17: Washington, D. C., 1932, p. 4)

The reader may also find pertinent material, especially with respect to an ideal system of guidance, in the *Thirty-Seventh Yearbook, Part I*, of this Society, entitled "Guidance in Educational Institutions."—*Editor*.

recruiting. The frequent interruptions of instruction in high schools by college representatives, who have insisted upon interviewing students or speaking to senior classes, combined with inaccurate interpretations of the advantages of their respective colleges, and other questionable methods of educational salesmanship, have put the high schools very much on the defensive against these agents. In fact, these practices tend to widen, rather than bridge, the gap between the high schools and the colleges. It is generally recognized, furthermore, that recruiting officers have given very little guidance to precollege students. In fact, they have in many instances interfered with effective guidance. Before any worthwhile plan of coöperation between the high school and the college can be developed, the evils inherent in the present situation must be remedied.

Any attempt to differentiate between desirable and undesirable practices in recruiting has limitations, but the recognition of the undesirable methods points the way to the substitution of guidance for high-pressure salesmanship that will provide an avenue for coöperation between institutions at both levels in the interest of the student.

Further evidence of the need for precollege guidance is found in the reasons commonly given by students for choosing the colleges they attend. Generally, "the nearness of the institution to the home of the student," "acquaintance with other students," "parental wishes," "influence of friends or relatives," and "opportunities for self-support" are the reasons mentioned most frequently as influencing the student in his decision. It is particularly significant that a comparatively small percentage of students seem to be influenced by literature from the colleges, although letters, bulletins, and brochures are used almost universally. Nor do considerations distinctly educational in nature, such as "the renown of the faculty," "the reputation of the institution," "opportunities to work under great scholars," appear to play any large part in affecting the student's choice.

Both the undesirable effects of student recruiting and the unsatisfactory bases upon which students appear to choose their colleges argue for a far more effective precollege guidance program. This need for guidance is dramatically emphasized by the fact that, according to recently published data, 34 percent of the students who enter colleges and universities do not continue beyond their freshman year.³

³J. H. McNeely. *College Student Mortality*. (United States Department of Interior, Office of Education, Bulletin No. 11: Washington, D. C., 1937, pp. 18-22)

A further consideration of the present practices of colleges with reference to recruiting and precollege guidance may indicate lines along which coöperative procedures may be developed.

2. The Practices

Data concerning the practices of colleges in the guidance of prospective students are available to the writer through his office as Secretary of the Commission on Institutions of Higher Education of the North Central Association of Colleges and Secondary Schools. Pertinent portions of these data may be summarized as follows:

Each college in the Association was asked to state the value of the procedures it employed in recruiting students. The following procedures, given in the order of the frequency with which they were reported, are most generally used.

1. The annual compilation of a mailing list of prospective students
2. The enlistment of the aid of alumni in recruiting students
3. Participation in "Go-to-College Day" held by some high schools
4. Conferences with high-school administrators and teachers to aid them in advising prospective students
5. Enlistment of the coöperation of all students in securing new students
6. Sending bulletins and brochures to a mailing list or to special cases
7. Sending catalogs to some on the mailing list or on special request
8. Entertaining prospective students at various events on the campus

Each of these practices was reported by more than fifty percent of the institutions. Other procedures, followed less frequently but found often enough to be noted, include:

9. The employment of full-time or part-time field representatives on regular salary
10. The expectation that certain faculty members will give time to student solicitation
11. Coöperation with high schools or with other colleges in giving tests for guidance purposes
12. The mailing of special bulletins to high schools to be used for guidance purposes.

Looked at from the standpoint of the value attached to them, these procedures follow a different order of rank from that noted above. The procedures regarded as valuable by a significant percentage of the institutions, arranged in order of frequency, are:

1. The annual compilation of a mailing list of prospective students

2. Conferences held with high-school administrators and teachers to aid them in advising prospective students
3. Enlistment of the alumni in recruiting students
4. Enlistment of the coöperation of all students in securing new students
5. Special bulletins, such as "Who Should Go to College," sent schools for guidance purposes
6. Coöperation of institution with high schools in giving tests for guidance purposes
7. Coöperation of institution with other colleges and universities in giving tests to high-school seniors for guidance purposes
8. Employment of part-time field representatives on regular salary
9. Distribution of catalogs to some on the mailing list or on request

It is especially noteworthy in this connection that the percentage of institutions attaching value to certain of these procedures is higher than the percentage of institutions employing the procedures. This is particularly striking with reference to the coöperation of the colleges with the high schools in giving tests for guidance purposes, coöperation of the colleges with other colleges and universities in giving tests to high-school seniors for guidance purposes, conferences with high-school teachers and guidance officers and special bulletins, such as "Who Should Go to College," sent to high schools for guidance purposes. The variation indicates a shift in emphasis on the part of some of the colleges from recruiting, as such, to a larger responsibility for guidance.

This same shift in emphasis is also seen in the practices, of the value of which these institutions are in doubt. For example, 50 percent send bulletins and brochures to every one on the student mailing list, but only 36 percent consider this practice valuable. Similar variations occur with reference to the enlistment of the aid of alumni in recruiting students and in participating in "Go-to-College Days."

No comparable data are at present available on the procedures employed in the high schools to give guidance to students contemplating entrance to college. Such scattered data as are available indicate that high-school principals and advisors of boys and girls commonly rely upon college catalogs and other information supplied by college administrative officers as a means of informing students. Apparently little use is made of test data and other objective measures of aptitude and ability as a means of aiding students to evaluate their competence for college work.

The coöperation of institutions in securing more objective measures of student abilities and in informing students more fully concerning the

opportunities and facilities they offer undoubtedly represents the direction in which precollege guidance should move.

The chief ends to be achieved by such coöperative guidance on the part of high schools and colleges are:

1. To interpret to prospective students the purposes and programs of the various colleges.

2. To aid students in selecting colleges best adapted to their abilities and needs, so as to avoid the high percentage of failure and the large turnover now common in institutions of higher education.

3. To re-direct students who lack the competence to enter college into other avenues of education or into employment appropriate to their abilities.

IV. PREDICTING SUCCESS IN COLLEGE

As has already been implied, a major question of mutual concern to both the high school and the college, and above all to the student himself, relates to the student's ability to succeed in college. It is incumbent upon a democratic society to raise continually its level of culture by the general diffusion of knowledge. To this end, it is important that educational opportunities above the high-school level shall be available to all students who can profit by them. It must be recognized, of course, that not every college can, or should be expected to, admit students of widely differing levels of ability, but *every student with potential ability to advance beyond the secondary level should be able to find an institution adapted to his requirements*. The matching of the potential abilities of students with the opportunities afforded by an institution of higher education is a most strategic point of coöperative guidance.

Much valuable research bearing on the post-high-school academic achievement of students is now available; still more research remains to be done. Each college must define the abilities essential to success in its program and must discover the most valid and reliable indices of these abilities. The changing nature of the educational program in the college, as well as the influence of increased selection on the predictive values of the measures employed, demand that these measures be constantly revised.

The bases for predicting success in college that are most widely used are high-school marks, rank in graduating class, major subjects taken, the pattern of subjects, scores on standardized tests of scholastic aptitude, entrance examinations, standardized achievement tests, and character and personality ratings. Success in college is most generally ex-

pressed in terms of instructors' marks. The results of investigations dealing with the relation between the measures for predicting success and actual achievement in college are usually converted into coefficients of correlation.

An interpretation of these correlations in terms of their efficiency for predicting achievement indicates that average high-school marks, taken as a single measure of success in college, appear to have some value, but are not highly significant. Such information as is now available leads to the conclusion that the rank of the student in his graduating class has a higher predictive value than has his average grade.

It has been assumed by some educators, particularly teachers in special fields, that the pattern of subjects pursued in the high school, as well as the achievement of students in certain subjects, is an index of ability to succeed in college. It has been shown conclusively, however, that when the general aptitude of students, as measured by standardized tests, is taken into account, the pattern of high-school subjects is definitely inferior to most other measures for predicting success.

Psychological tests are now being administered very generally among high schools and colleges. Some educators have a profound faith in the significance of the results of these tests as a basis for predicting success in college, while others are skeptical. The coefficients of correlation between these test scores and marks earned in college usually range all the way from .10 to .67. Most of them fall between .40 and .50. Taken as a single measure of prediction, psychological test scores appear to be less efficient than average high-school marks or rank in class.

Several types of examinations in school subjects are commonly used in predicting success. Among these are the examinations of the College Entrance Examination Board, those given by the Coöperative Test Service, and achievement tests published independently or by various colleges and universities. While examinations given by the College Entrance Examination Board have been criticized by many leading educators, and with considerable justice, the use of some type of achievement test in admitting students to college is increasing. Most recent studies concerning their value for purposes of predicting success in academic, including preprofessional, courses (not general education) support their use. Most of the investigations have been limited in scope and the results are not sufficiently comparable to justify any sweeping generalizations. The weight of opinion among the investigators, however, appears to attach some significance to them as a single measure for prediction. It must constantly be kept in mind, however, that these

measures have value for predictive purposes only with reference to the type of college program and the standards of judgment for which the indices have been computed. As the programs or standards change, new indices must be determined.

In addition to the more objective types of evidence that may be secured through marks and through aptitude and achievement tests, other types of evidence less objective in nature may also be obtained. Among various approaches to the identification and evaluation of less tangible factors has been the development of tests of character and personality. It appears from all the data available, however, that character and personality tests and ratings are of little value as a basis for predicting the usual kind of college achievement. They may be very important for diagnostic and advisory purposes, however, and should not be regarded as worthless merely because they have no apparent significance for purposes of prediction of academic success.

It is generally agreed, and this conclusion is supported by the preceding discussion, that *no adequate single criterion has yet been found for predicting success in college*. A number of institutions have endeavored to combine two or more measures in selecting students and have thereby improved the reliability of their predictions. By the use of several measures in combination, a threshold of aptitude in relation to a student's probable success within limits can be established with considerable accuracy. While there is no assurance that students whose ability lies above this threshold will succeed, owing to many other factors that may affect their achievement, there is little error in predicting failure for those whose scores fall below well-established thresholds. *Each institution must define its own threshold, or critical index of probable success or failure, in terms of the relationship that the college has discovered between the ability of students and their success with particular curricula*. The measures most valuable in establishing such a critical index are intelligence-test scores and rank in high-school graduating class.

It must always be borne in mind in using data of the type referred to that coefficients of correlation and most of the other measures of achievement are based upon the performance of groups of students. Every effort must be made to individualize the interpretation of these data as they pertain to a given student. Interest, motivation, and freedom from outside demands upon time and energy often make it possible for a student to reach a higher level of achievement than might be predicted from his scores.

V. COÖPERATION IN GATHERING AND INTERPRETING ESSENTIAL DATA

It seems clear that any program of adequate precollege guidance must be based upon a wide range and variety of data. The gathering and interpreting of these data by each separate school, either secondary or college, involves considerable duplication of effort. It means, further, that owing to the lack of adequately trained counselors, the data are often not used very effectively. Several approaches to the collection of these data give promise of improving the effectiveness with which they will be used. Among these approaches are coöperative, state-wide testing programs. The value of such coöperative programs has been partially demonstrated in a number of states, notably Minnesota, Ohio, and Wisconsin.

There is, of course, a genuine danger in the development of state-wide testing programs that institutions of higher learning may, through the use of achievement tests, set the pattern of high-school instruction. It would be unfortunate if the curriculum of the high school were dominated by the colleges through tests, particularly since college entrance requirements are just being liberalized so as to allow high schools more freedom in the organization of curricula adapted to the needs of students. Coöperation in a testing program on the part of the colleges, if it is to serve its purpose, must be directed to the educational interests of students of differentiated abilities and potentialities and must avoid once more setting a stereotyped pattern for the high-school curriculum. It must also be conducted with full recognition of the limitations of any tests that may be used.

A few colleges and universities have organized their own testing bureaus or laboratories for the purpose of aiding students in their self-evaluation. It would probably not be practicable for all colleges to develop bureaus of this type, but it would seem entirely feasible for a number of institutions to coöperate in the maintenance of such a bureau. In larger school systems such bureaus may be maintained as part of the program of public education.

Some of the most valuable data for advisory purposes are found in the cumulative records now being used in a few secondary schools. Such records will summarize the attitudes and work habits of students, their socio-economic background, their interests and significant experiences—all of which have a bearing upon their probable success in college and will serve to supplement the inadequate records that consist wholly of teachers' marks for courses.

It must be clear that advisory and guidance work has been done "to select students" for "success in college" where success is measured by achievement in academic subjects. The broad functions of general education have hardly been recognized as common concerns of high schools and colleges. To accomplish these broad functions, our educational institutions, collectively, must take (not select) the student and help him toward his maximum development. With the assistance of competent counselors, post-adolescents will find the type of college or other institution best suited to their individual needs and interests.

VI. FURTHER STEPS TOWARD ACHIEVING UNITY AND CONTINUITY IN GENERAL EDUCATION

The coöperative guidance of students in the ways just indicated is an important means of bridging the artificial gap between the high school and the college. Further steps, more far-reaching in nature, must also be given consideration if an essential unity of general education is to be achieved. One such step consists in the reorganization of subject matter for the purpose of general education. Anyone who studies both the high-school and the college curricula in their present form must be impressed by the sharp lines of division commonly found among the subjects. Literature, art, music, and history are largely isolated from one another, although in fact they are interwoven elements of human culture that cannot be fully understood and appreciated except as they are projected on a common background. Introductory courses in chemistry, physics, botany, zoölogy, and physiology are taught with laboratory recipes that have little meaning to the student. The interrelationships of the sciences, as well as the relationship of the various scientific disciplines to everyday life, are all but ignored. Steps have already been taken in a few colleges and universities toward the development of unified curricula for general education. The general courses that have resulted from these attempts have been bitterly criticized by some educators, who regard the college as an agency for the selection and training of only potential scholars and leaders. Moreover, an examination of some of these general courses leaves one with the impression that subject-matter departments still exert a large influence in determining the nature of their content. Imperfect as are the courses themselves, and few as are the institutions recognizing their unifying purpose, there can be little doubt about the existence of a trend away from the segmentation of subject matter with a view to reëstablishing an essential unity that was once recognized, but long since has been lost.

Quite as important as the problem of leading students to discover and understand the essential unity of human thought and experience is the achievement of a continuity of educational experience between the high school and the college. The reorganization of a few four-year colleges represents an effort to unify the curricula vertically, just as the organization of general courses represents an attempt at horizontal unification.

Still another approach to achieving the same ends, as far as the articulation of the high school and college curricula are concerned, is found in the provision made by some colleges for students to demonstrate their educational achievements without fulfilling the requirements of specific courses. Illustrations of such arrangements are the plans in operation at the University of Chicago and the University of Buffalo. At the former, students may demonstrate their competence in a given field by passing a comprehensive examination. The percentage of students who take their examinations without taking courses above the high-school level is not large, but the marks of those who avail themselves of this opportunity are on the average higher than are those of students who take the college courses.

The need for the continuity of educational experience on the part of the student cannot be fully achieved through these changes in the curricula. More consideration must also be given to the factors involved in individual development and maturity. Insufficient consideration is given in our present system of educational organization to the developmental nature of the educative process, to the fact that the student is a growing and changing individual. This is well illustrated in the acquisition of skills and techniques in reading. It has long been assumed that adequate reading habits are established at the elementary-school level. But teachers in the high school are constantly aware of the fact that their pupils are confronted with reading situations for which they are wholly unprepared. They encounter new types of subject matter calling for analytical and critical reading. They are asked to read extensively, to gather information from various sources, to compare points of view of different authors. High-school graduates who go on to college show even more dramatically limitations in their ability to read because the demands made upon them are more exacting. This situation cannot be met permanently by the introduction of remedial reading at the college level. Full cognizance must be taken of the developmental nature of reading. Special emphasis must be given to reading, writing, and

criticism as phases of the uses of language throughout the whole period of general education.

More adequate cognizance must also be taken of the fact that students who are about to enter college are in the process of growing up, that they are at the point in their development where they should be able to assume large responsibilities. The differentiation between seniors in the high school and the same persons as freshmen in college with respect to the responsibilities they are required to assume is seldom commensurate with the differences in their social maturity. Colleges are often disappointed because of the inability of their freshmen to live, work, and think independently. Provisions for freedom from regimentation commensurate with the ability of students at the secondary level to use such freedom to their own educational advantage will do much to prepare students for the large degree of independence granted them at the college level. Such provisions may include independent study, optional attendance of classes, extensive reading comparable to that required in college, and responsibility for managing extra-curricular affairs. Both the high school and the college must recognize the fact that individuals do not grow up uniformly. Uniform regulations governing both the classroom and the extra-classroom life of students are wholly inconsistent with the facts of variation in social maturity.

Both the college and the high school show a commendable alertness to the needs of youth. The common concern of institutions at both levels for the educational welfare of youth is manifested in steps now being taken toward the coöperative guidance of youth; toward the unification of the educational program both horizontally and vertically; and through a growing recognition of the principles of growth, making for differentiation instead of uniformity, for freedom instead of regimentation.

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SECTION II

COLLEGE PLANS EMPHASIZING THE EXTENSION OF
GENERAL EDUCATION

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CHAPTER VII

THE JUNIOR COLLEGE

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I. THE COLLEGE PREPARATORY OBJECTIVE

The college preparatory function—"offering two years of work acceptable to colleges and universities"—was the dominant aim of the junior college at its inception. Koos found in his study of junior-college objectives that the most generally accepted purpose was college preparation. Eells points out:

The junior college, in its experimental stage, was anxious to measure its product against previously existing definite standards; namely, upper division university work. The university was somewhat skeptical of its new ally, in some cases, and proceeded to set up various standards, definitions, and accreditation which stressed almost exclusively the preparatory function, and the junior college spent its first energies in an effort to meet these. An institution which was not giving courses of real college grade could not expect long to survive.¹

It is easy to understand how a new institution eager to gain respectability would in its early years aim to conform to criteria of appraisal previously developed by standard colleges.

During the four decades of the junior-college movement, America and the needs of youth have changed (see Chapter II). During the forty years of its existence the junior college has had an opportunity to grow from infancy to adulthood—or at least to adolescence. No longer should it be necessary for the junior college to ape the first two years of the university in order to gain recognition and respectability. This new unit of the educational system has actually had a chance to earn its independence and to make for itself a unique position in meeting the needs of youth.

With the changes in society and in the needs of youth, and with the passing of the years, one might, then, expect the junior college to have

¹ W. C. Eells. *The Junior College*. (Boston: Houghton Mifflin Co., 1931, pp. 248-249)

studied student needs and to have established new programs designed to meet those needs. Actually, however, what do we find? We find little evidence of success in blazing new educational trails; we still find the dominance of the college preparatory objective almost complete. Taylor, in 1933, reports that "practically 80 percent of the students enrolled in 153 junior colleges scattered over the United States are in college preparatory curricula."² Similarly, three years later Webb reports a study of junior-college offerings in California in which he says:

The California junior colleges have devoted their major emphasis to preparation of their students for the pursuance of advanced work in the university. . . . 93 percent of all the academic work offered in small junior colleges (under 250) parallels courses at the University of California; in medium-sized institutions (250-1000) the corresponding figure is 88 percent; and in large institutions (over 1000) it is 66 percent.

As the lower-division courses which the University of California provides in its several academic departments are largely preparatory to advanced work in those departments, and in the majority of instances contain material of a specialized character, it is evident from the analysis above that the junior college is seriously neglecting one of its major functions, that of providing an opportunity for the completion of general education.³

There is, of course, a possibility that the college-preparatory function should be dominant—that it best meets the needs of the students who actually attend junior college. In a study of seven thousand California junior-college students who plan to continue their education after graduating, Eells finds that only 28 percent of them actually enter—many less graduate from—the college of their choice. Thus the "junior college, far more than commonly supposed, is a terminal institution for a large proportion of its student body."⁴

Eell's conclusions are supported by the studies of Knox and Walker, in Missouri and Mississippi, respectively. Knox finds that "out of every ten students enrolling in Missouri junior colleges, three continue until they are graduated; of the three who are graduated, only one enrolls in an institution of higher learning."⁵ In his Mississippi study Walker

² Arthur S. Taylor. "Curricular research is urgently needed." *Junior College Jour.*, 3: 1933, 339-344.

³ Paul E. Webb. "Analysis of junior-college offerings." *Junior College Jour.*, 6: 1936, 339-344.

⁴ W. C. Eells. "Intentions of junior-college students." *Junior College Jour.*, 7: 1936, 3-10.

finds that, of 1305 students entering junior colleges, only 266 (20 percent) continue studies in a senior college or a university. "If these findings exist in other sections of the nation, with so few students who enter junior college continuing their studies in higher institutions, how can junior colleges continue to give major emphasis to their so-called preparatory function?"⁶

The typical junior college appears to provide a course of study that is dominantly college preparatory, and the typical student pursues such a course. Curiously enough, however, when this student leaves the junior college, he does not continue in an institution of higher learning. His schooling is complete. In other words, the junior college presents the paradoxical situation of devoting its major energies to attaining an objective needed by no more than one-fourth or one-fifth of its students. This condition has undoubtedly excluded from the junior college hundreds of thousands of youth who are not interested in preparing for college entrance, but who would be interested in a curriculum planned to aid them in meeting pressing problems of life.

From time to time educators refer to "the rapid and startling growth of the junior college." At first thought, increasing junior-college enrollments may appear startling. Further consideration, however, results in amazement that the growth of the junior college has been as slow as it has. With a history that extends over four decades (an active movement for at least twenty years), with millions of youth of junior-college age out of school and out of employment, the surprising fact is not that junior colleges enroll as many as 140,000 students,⁷ but rather that this enrollment is not many fold larger.

Without doubt the homage the junior college pays to its college-preparatory objectives and its attendant failure to plan curricula in terms of the needs of youth have resulted in what appears to be the stunting of its growth. Certainly the emphasis given the college-preparatory objective is motivated by no desire on the part of junior-college administrators to fail in serving youth. The continued emphasis on preparation for college is caused by several understandable situations, of which two deserve emphasis.

⁶ W. F. Knox. "Cultural terminal courses in the junior college." *Peabody Jour. of Educ.*, 14: 1937, 251-259.

⁷ Kirby P. Walker. "The need for terminal courses." *Junior College Jour.*, 8: 1938, 179-180.

⁸ Doak S. Campbell. "Directory of the junior college, 1938." *Junior College Jour.*, 8: 1938, 209-223.

First, most junior-college students plan to enter college,⁸ and therefore do not wish to take any course that the state university will not accredit. It is a common practice for universities to refuse transfer credit for courses that do not parallel those they offer freshmen and sophomores. This situation places the junior-college administrator in a dilemma: a good majority of his students refuse to take courses that the state university will not accredit, and the university (since it offers no similar courses) refuses to allow credit for new-type courses organized specifically in terms of student life needs. The obvious resolution of this dilemma is to offer traditional courses that students will take and that the university will accept for the few who continue their education.

Second, it is easier for the junior-college administrator and his teaching staff to provide a course of study similar to that already offered in typical colleges than to organize new courses in terms of student needs. Traditional courses can be modelled after those that most instructors have taken in their undergraduate days. New-type courses, on the other hand, require thorough study of student needs, a new organization of materials to meet these needs, and the development of teaching methods adapted to the new materials and objectives.

II. RECOGNITION OF NEW OBJECTIVES

Although the single college-preparatory objective is dominant in the junior college, there are a number of signs that the junior college may soon take a position of leadership in providing a curriculum that meets the vital needs of youth. Among such hopeful signs is the recognition by educational leaders that the junior college is not adequately fulfilling its functions. Statements representative of those appearing in junior-college literature, the effect of which must soon be felt in practice, are the following:

From its inception the junior college has been proposed as an institution designed to achieve certain broad social ends of which preparation for further scholarly pursuits is but a part. If the junior college is to achieve these social ends it must develop curricula that are far more comprehensive than are those found in a great majority of junior colleges.⁹

⁸ Eells reports that more than eight thousand of some ten thousand California junior-college students studied were planning to enter an institution of higher learning after leaving junior college. W. C. Eells, *op. cit.*

⁹ Doak S. Campbell. "Necessity for critical evaluation and appraisal." *Junior College Jour.*, 6: 1935, 109-110.

The inner life of the junior college is not genuine and sincere; it is an imitation, a copy of what the standard college is doing on the same level. It is a mere fragment of an institution, clinging to its royal lineage with defiant mien. Lacking inner life of its own, it lives by its agility to imitate and ape the four-year college organization.¹⁰

The junior college should shift its major emphasis on offerings of a preparatory nature for the benefit of a few and place that emphasis upon vocational and terminal offerings for a large number of students. It does not follow that the preparatory function need be discarded. There is a very definite need for such training at the junior college level. What it does mean is that the preparatory function should not be the dominant function.¹¹

A second tendency that should stimulate junior colleges to build courses of study in terms of student needs is the more liberal attitude being taken by a number of universities toward the acceptance of students transferring from junior colleges. Representative of the direction this trend may ultimately take is the announcement of a new admissions policy by Stanford University:

A student who has completed a two-year program in a recognized institution, and has done so with satisfactory quality, will not be held for the Stanford lower division requirements upon acceptance here. This, as you see, removes specific restrictions that were implied by our old relationships in which candidates for admission who had not fully met our lower division requirements or those of the California junior certificate were held for the balance of the Stanford lower division requirements.

The spirit of this move is to recognize the fact that in the junior colleges there are guidance facilities whereby the programs of students may be constructed on an intelligent forward-looking basis. Our hope will be that the students anticipating coming to Stanford will build substantial broad backgrounds for upper division and graduate work which will be comprehensive in nature and will include the prerequisites of the particular fields in which they expect to specialize. The emphasis continues to be on quality of work rather than specific details of pattern.¹²

The new admissions policy at Stanford recognizes the junior-college

¹⁰ Frederick Eby. "The philosophy of the junior college." *Junior College Jour.*, 7: 1937, 414-424.

¹¹ Karl M. Wilson. "Vocational objectives in junior college." *Junior College Jour.*, 6: 1936, 358-359.

¹² From a letter written by J. P. Mitchell, Registrar of Stanford University. on July 13, 1938.

diploma, just as most colleges recognize the high-school diploma or just as most graduate schools (and, in fact, society itself) recognize the baccalaureate, without reference to minutiae of information regarding every course taken.

When universities generally adopt such a policy of admitting junior-college transfers on the basis of quality of work done, rather than merely on the basis of the titles and numbers of courses taken, they will not only select students in terms of ability to do satisfactory university work, but they will also encourage junior colleges to plan courses and programs of study in terms of student life needs.

A third encouraging trend is found in the junior colleges themselves. A number of junior colleges have found that, despite the obstacles that have been enumerated, it is possible to develop new programs of general education planned in terms of student need. Such developments are, of course, most significant, for they represent attempts to translate into practice the recommendations of those educators who criticize the junior college for its failure adequately to recognize the needs of youth. As examples of the general education programs being developed by scattered junior colleges, there will be described briefly the programs of three institutions: (a) Pasadena Junior College—a public junior college, (b) The College of the University of Chicago—a junior college as a unit in a university, and (c) Stephens College—a private junior college for women.

1. Pasadena Junior College

a. Objectives. Pasadena Junior College, which includes grades XI to XIV, is the topmost unit of a public school system organized on the 6-4-4 plan. Under an agreement with the University of California, twelfth-grade students at Pasadena Junior College may, even before actual high-school graduation, elect regular college courses for which they receive credit on transfer to that University. This arrangement has encouraged Pasadena Junior College to organize a curriculum adapted to the needs of its students. Accordingly, the objectives of the College are conceived in terms of these life needs: (a) education for health, (b) education for vocation, (c) education for leisure, (d) education for home membership, (e) education for citizenship, and (f) education for character.

b. Administrative Unit. Because Pasadena educators felt that the usual administrative units might be changed so as to remove a number of obstacles to the attainment of student needs, a careful study was

made of the relation of the high school to the junior college. As a result of this a four-year (rather than a two-year) junior college was organized. Harbeson summarizes as follows the philosophy underlying this decision:

1. The freshman and sophomore college years are a logical part of the secondary-school system rather than of the standard college or university.

2. Being secondary in character, these years should be closely articulated with the rest of the secondary-school system.

3. The most efficient and economical articulation is the union of these years with the eleventh and twelfth grades as a single four-year institution.

4. This junior college, as the top-most unit of the public school system, must be neither traditional high school nor traditional college, but must develop character and individuality of its own, with methods and policies adapted to the ages with which it deals.

5. The four-year junior college is an institution of sufficient size and span to be a complete unit in itself. It is not a fractional part of a standard college transplanted from its native habitat into the local community.

6. The twelfth grade is not a logical stopping place, inasmuch as it falls two years short of the completion of the secondary span.¹²

c. *Curriculum.* In planning the four-year curriculum, the staff has kept in mind the needs of both 'terminal' and college-preparatory students.

The core curriculum consists of six general introductory or survey courses in the fields of biological science, physical science, humanities, social studies, home-making, and a course in group guidance which, for want of a better name, is labeled 'orientation.' These survey courses are required of all students with the exception of the course in home-making, which is required of women only. The survey course in general biology is given in the tenth grade of the junior high school and is not duplicated in the junior college. Orientation, physical science, and humanities are taken by most students in the eleventh grade, and the courses in social studies and home economics are regularly assigned to the twelfth grade. In addition to the six survey courses, all students are required to take a year's subject-matter course of at least six units, subject to the student's election, in each of three major fields—science (physical or biological), humanities, and social studies. The survey courses and the three subject electives constitute the core curriculum

¹² John W. Harbeson. "The Pasadena junior college experiment." *Junior College Jour.*, 2: 1931, 4-10.

and for most students are completed by the conclusion of the twelfth grade. It is felt by the curriculum committees that this spread of general education is the minimum amount of liberal training acceptable for citizenship and development. With such widely scattered requirements it is evident that there can be no specialization and little vocational training before the completion of the twelfth grade.

Above the twelfth grade the curricula for college preparatory and terminal students differ sharply. University preparatory students are required to meet the Junior Certificate requirements of the University of California, which continues the spread of general education virtually to the point of junior-college graduation. For the terminal student, however, there are no requirements in general education above the core curriculum. Various curricula are offered above that point which articulate with business and industry rather than the upper reaches of the university. These curricula have a decided vocational emphasis and are projected upon the semi-professional level. Chief among these semi-professional curricula are those in business administration, merchandising, secretarial training, technology (civil, aviation, mechanical, electrical, and architectural), landscape design and floriculture, forestry, nursing, recreational leadership, a terminal course in general education, and some others of less popular character. On the completion of the core curriculum the student is free to elect one of these semi-professional terminal curricula to which he gives virtually his entire time during the remainder of his junior college career and on the completion of which he receives his diploma from the junior college and the title 'associate in arts.'⁴

The successful administration of an educational program such as that at Pasadena Junior College requires an effective program of individual student guidance. Accordingly, the College has a staff of six full-time counselors who work under the direction of a dean of guidance. In addition to teaching the course in group guidance to his advisees, each counselor gives continuing counsel to the students for whom he is responsible. Since Pasadena has an effective counseling program in its junior high schools, as well as in its junior college, it is possible for most students to select the college-preparatory curriculum or a terminal course during either the eleventh or twelfth grades.

d. Evaluation. Because the comprehensive program of evaluation planned by the College got under way only during the 1937-1938 school year, results are not yet available.

⁴ John W. Harbeson. "Curricular organization of Pasadena Junior College." In B. Lamar Johnson, ed. *What About Survey Courses?*

2. The Four-Year College Program in The University of Chicago¹⁵

In 1933 the Board of Trustees of the University of Chicago adopted a recommendation of the president which provided "That the work of the College in general education be extended by removing the last two years of the University High School from the jurisdiction of the Division of the Social Sciences and the School and Department of Education and incorporating them in the College program."

Under this reorganization the Principal of the High School became the Assistant Dean of the College. The members of the High-School Faculty whose work was wholly or largely in the junior and senior years became members of the college faculty. This change in administration paved the way for the appointment of a committee representing what had been the faculty in the last two years of the high school and the faculty of the two-year College, whose responsibility it was to define the objectives and organize a curriculum for a four-year college.

a. Objectives of the Four-Year College. Without reviewing in detail the procedures of the committee just mentioned, it will suffice to say that certain general principles pertaining to the Four-Year College were arrived at by consensus after the characteristics and needs of the students for whom the program was designed had been considered from many angles. These principles as formulated by the committee are:

1. The emphasis in the College is to be placed upon general education so conceived that time shall be available to students in which to follow special interests or to acquire a greater mastery of the subjects and techniques needed for advanced work.

2. The program of the College shall be organized to take cognizance of the needs of students who do not go on with divisional or professional work. The educational needs of this group and of those going on in a Division or Professional School will be met by the same basic program of general education indicated in Paragraph 1.

3. The end of general education can be achieved best by helping students to master the leading ideas and significant facts in the principal fields of knowledge, with a view to the development of intelligent action.

4. Students shall be given freedom and responsibility commensurate with their ability to use such freedom and responsibility to their advantage. It is generally agreed that students in the first year, because of their immaturity, will need more supervision and direction than those in the later years. It is also recognized that in the second year and occasionally in the first year some

¹⁵ This account has been written by A. J. Brumbaugh, Dean of The College at The University of Chicago.

students will be sufficiently mature and will have a foundation in certain subject-matter fields to merit a larger degree of freedom than can be accorded to most students at this level. The faculty may employ such plans for allowing individual freedom as meet with the approval of an administrative committee composed of the Dean of the College, the Dean of the Students in the College, and the Assistant Dean of the College. It is expected that by the time students reach the third year of the College program they will be competent to use advantageously the freedom now accorded students in the College.

b. The Curriculum of the Four-Year College. Having agreed upon these guiding principles, the committee set itself to defining the scope and content of the curriculum. Individual members of the committee drafted plans for a curriculum expressing their respective points of view as to the nature of the courses adapted to the purposes of the Four-Year College. These plans were compared and criticized by the committee as a whole. The curriculum that emerged from these deliberations provided for the following courses:

(1) *Humanities.* A three-year course that includes material from history, the social studies, fine arts, and literature. The first year begins with ancient history and continues to Charlemagne. The second year is devoted to medieval and modern European history to the later nineteenth century. In the third year the emphasis is placed on contemporary European and American history.

(2) *Foreign Language.* The mastery of a foreign language equivalent to that represented by two entrance units. The student shall demonstrate his mastery of the foreign language by passing an examination.

(3) *Mathematics.* The mastery of mathematics equivalent to that represented by two entrance units.

(4) *The Natural Sciences.*

Biological Science. The first year is devoted to a study of the plant and animal kingdoms. The second year is given to a study of the human body in health and in disease. A student may take the Introductory General Course in the Biological Sciences in lieu of the two-year course.

Physical Science. Certain basic principles and their applications drawn from chemistry, physics, astronomy, and geology constitute the content of this course. A student may take the Introductory General Course in the Physical Sciences in lieu of the two-year course.

(5) *Philosophy.* This course will be taught for the first time in 1940-1941. As now conceived, it is designed to encourage active critical reflection on the part of the student with reference to methods previously used in all fields of subject matter and to the interrelations of subject matter previously considered.

(6) *Reading, Writing, and Criticism.* A course in which the work is focussed upon the intensive reading of selected texts in the subject-matter fields included in the four-year curriculum. Experience in oral and written expression

is provided through exercises designed to indicate the student's comprehension of the material that he reads.

(7) Social Sciences. The first year of this course is devoted to the study of society, primarily from its political aspects in their American setting. In the second year the chief emphasis is placed upon the study of society from its economic aspects. The work of the third year, to be given for the first time in 1939-1940, will center in the sociological aspects of society.

(8) Electives. The equivalent of a full year's work in each of two elective sequences.

This curriculum parallels that of the Two-Year College in some respects, but it represents a distinct departure and promises to make a new contribution in two ways: (1) the course in reading, writing, and criticism embodies a new concept of the instruction in English language; and (2) the course in philosophy promises much in the direction of an integration of the various fields of knowledge.

The relation between the curriculum of the Four-Year College and that of the Two-Year College is shown in the following summary:

<i>Curriculum of The Two-Year College</i>	<i>Curriculum of The Four-Year College</i>
Introductory General Course in the Biological Sciences, 1 year, 4 hours per week	Biological Science, 2 years, 4 hours per week plus some laboratory exercises
Introductory General Course in the Humanities, 1 year, 4 hours per week	Humanities, 3 years, 5 hours per week in the first two years, 4 hours per week in the third year
Introductory General Course in the Physical Sciences, 1 year, 4 hours per week	Physical Science, 2 years, 4 hours per week plus some laboratory exercises
Introductory Course in the Social Sciences, 1 year, 4 hours per week	Social Science, 3 years, 4 hours per week
English Composition, 1 year, 3 hours per week	Reading, Writing, and Criticism, 3 years, 3 hours per week
Electives, the equivalent of a full year's work in each of two elective sequences	Philosophy, 1 year, 4 hours per week
Mathematics, the equivalent of two years' work at the secondary level	Electives, the equivalent of a full year's work in each of two elective sequences
Foreign Language, the equivalent of two year's work in a single foreign language at the secondary level	Mathematics, the equivalent of two years' work
	Foreign Language, the equivalent of two years' work in a single foreign language

These two programs are not so completely separated as the preceding summary might imply. It was recommended by the committee that a

student who takes the two-year course in the biological sciences in the four-year program should take in addition the introductory general course in the physical sciences in the two-year program, or conversely. There is a further provision that, with administrative approval, students may take the introductory general courses in the humanities or the social sciences in the two-year program in lieu of the longer courses in these fields in the four-year program. Students in the foreign languages are generally enrolled in the same courses whether they are in the two-year or the four-year program. Many of the elective sequences are also identical.

c. Methods and Materials of Instruction in the Four-Year College. Every effort is made to adapt the methods of instruction in the Four-Year College to the nature and purposes of the courses and to the needs of the students. It is impossible to include here anything more than a brief description of these methods.

First, it should be noted that, owing to the comparatively small registration in the Four-Year College, instruction in all the general courses is given in sections not exceeding thirty or thirty-five students. This is in marked contrast to the Two-Year College, in which the registration in lecture sections may be as high as 400 or more students. The small sections in the Four-Year College has made possible a wide variation in methods and has made it less necessary to use the lecture method continuously than is the case in the Two-Year College. It is likely that, if and when the registration in the Four-Year College increases, some provisions will have to be made for the organization of larger groups for the purposes of instruction.

Second, the subject matter of the courses is organized into a series of units. The study of a unit is generally begun with a short lecture or introductory statement by the instructor. This is followed by supervised study, individual and group conferences, quizzes, and special written or oral exercises during the class periods devoted to the study of the unit. By way of summary at the conclusion of each unit students present papers or oral summaries called "floor talks."

Third, in most of these courses students purchase basic texts. In addition they do considerable collateral reading in designated reference books. Small working libraries for the humanities and social science courses are maintained in the classrooms.

Fourth, a wide variety of special exercises (such as field trips and laboratory experiments) and supplementary aids and charts to instruc-

tion (such as maps, motion pictures, and charts appropriate to the nature and purpose of each course) are also employed.

If space were available, the nature of the methods and of the materials used in instruction might be made more specific and concrete. It may be emphasized, however, that there is a large degree of flexibility in the methods, that every effort is made to make the subject matter concrete and meaningful in terms of everyday life, that more consideration is given to principles and their application than to details and quantitative minutiae, and that the students are given as large a responsibility in getting their education as they are able to assume.

d. Student Advisory Service. It is recognized that if students are to make the most of their educational opportunities in this program, the advisory service must be extended. The methods of instruction impose on the instructors a large responsibility for advising students in regard to difficulties they may have in particular courses and on such matters as outlining, taking notes, and study techniques. In addition to this general distribution of advisory services among the whole faculty, more specialized services are provided. Some faculty members serve as advisers to students assigned to them. It is their responsibility to plan programs of courses, to see that these programs are adjusted to the purposes and abilities of the students, to deal with special cases of failure or poor achievement, to keep parents informed regarding the progress of their sons and daughters, and to advise the administration of difficulties that are too deep-seated or complicated for them to deal with.

A special diagnostic service of reading and study habits is also available. Students needing special aid in overcoming handicaps are referred to the reading laboratory. The diagnosis consists in the use of various forms of reading and vocabulary tests, in examinations for visual deficiency, in photographic records of the eye movements in reading, and an exploration of psychiatric factors bearing on the difficulty. Remedial procedures appropriate to the difficulties are provided under the supervision of the diagnostician.

The Assistant Dean of the College confers with students on many types of personal problems, such as financial difficulties, family relations, activities on the campus, or conduct.

A well-staffed health service gives medical examinations annually, provides first aid, and makes periodic examinations in case of the prevalence of contagious diseases among students. A consulting psychiatrist deals with the more serious types of emotional and behavior problems.

Centralized cumulative records give a fairly complete picture of the

student's physical and mental development. This is more particularly true of students who have come into the four-year curriculum of the college from the laboratory schools of the university.

e. Measuring Achievement in the Four-Year College. Upon the basis of information secured through written papers, quizzes, and special exercises, instructors make quarterly reports of the progress of each student. These reports are used primarily for purposes of guidance, for the information of parents, and for transmission to officials of other institutions to which students may transfer.

The report of the Curriculum Committee provides that "In fulfillment of the requirements of the Four-Year College a student shall pass a separate examination covering the work of each year of each course as outlined in the curriculum."

As has already been stated, this program was adopted to go into effect in the Autumn Quarter of 1937. The students who entered the Four-Year College at that time have just completed the work of the first year and have taken the comprehensive examinations prescribed in the Report of the Curriculum Committee.

Certain sections of the comprehensive examinations taken by students in the first year of physical science in the four-year curriculum and by students in the introductory general course in the physical sciences in the two-year curriculum were identical. It was possible therefore to compare the achievement of the two groups; *i.e.*, those at the level equivalent to the junior year in the high school with those at the level of freshmen or sophomores in college. This comparison is given in Table I.

TABLE I.—COMPARISON OF SCORES IN PHYSICAL SCIENCE I-A (FIRST YEAR IN THE FOUR-YEAR COLLEGE) ON THE PART OF THE EXAMINATION COMMON TO THE PHYSICAL SCIENCES GENERAL COURSE IN THE TWO-YEAR COLLEGE AT THE UNIVERSITY OF CHICAGO

Group	Number of Students	Mean	Standard Deviation
Four-Year College	116	41.2	6.70
Two-Year College	542	41.0	7.34

It will be observed from these data that the average performance in the material common to both courses is almost exactly the same for the two groups. Moreover, there is no significant difference in the spread of the scores.

A similar comparison of the achievement of Two-Year and Four-Year College students in the comprehensive examinations covering ma-

terial common to the social science courses in the two programs is presented in Table II.

TABLE II.—COMPARISON OF SCORES IN "AMERICAN POLITICAL INSTITUTIONS"
(FIRST-YEAR SOCIAL SCIENCE COURSE IN THE FOUR-YEAR COLLEGE)
ON THE PART OF THE EXAMINATION COMMON TO THE SOCIAL
SCIENCES GENERAL COURSE IN THE TWO-YEAR COL-
LEGE AT THE UNIVERSITY OF CHICAGO

Group	Number of Students	Mean	Standard Deviation
Four-Year College	113	36.8	5.2
Two-Year College	593	35.7	5.4

The difference between the averages of the two groups is again not significant, and the dispersion of scores about the mean is practically the same for the two groups.

Owing to the fact that the second year's work in the physical sciences in the Four-Year College (Physical Science 2-A) was also taught during the past year, 1937-1938, a similar comparison has been made between the achievement of those taking this course: *i.e.*, students at level of high-school seniors, and the achievement of those taking the physical sciences general course in the two-year curriculum; *i.e.*, students at the level of college freshmen and sophomores. These data are summarized in Table III.

TABLE III.—COMPARISON OF THE SCORES OF STUDENTS IN PHYSICAL SCIENCE
2-A ON THE PART OF THE EXAMINATION COMMON TO THE PHYSICAL SCI-
ENCES GENERAL COURSE WITH THE SCORES OF STUDENTS IN THE
TWO-YEAR CURRICULUM AT THE UNIVERSITY OF CHICAGO

Group	Number of Students	Mean
Four-Year College	31	98.6
Two-Year College	542	81.0

These data show that the students in the Four-Year College made an average score 17.6 points higher than the average score of the students in the Two-Year College. The test results show further that only five students in Physical Science 2-A made scores on the common part of the examination below the average score of the students in the Two-Year College.

While the data based on the experience of only one year are too limited to justify a far-reaching generalization, they tend to support the conclusion that students in the first two years of the four-year cur-

riculum are able to master the type of science material that is included in the two-year curriculum and to master it as well as, or better than, college freshmen and sophomores.

3. Stephens College

a. Objectives. At Stephens College the administration early decided that the objective of the curriculum was to provide an education for women in terms of their needs. In order to determine the needs of women, Dr. W. W. Charters in 1921 began a study of the activities of women. With the assistance of the American Association of University Women and the United States Bureau of Home Economics, he gained the coöperation of more than three hundred women, all college graduates, some married and some unmarried, part of them employed outside the home and part in the home. Over a period of weeks these women kept diaries in which they recorded not only their activities, but also their problems and their very thoughts.

Charters analyzed the seventy-five hundred items reported in these diaries and found the following seven areas of activities common to all women, regardless of whether they are married or single, living in the home or employed outside the home:

- | | |
|----------------------------------|-------------------------|
| 1. Communications | 5. Mental health |
| 2. Appreciation of the beautiful | 6. Consumers' problems |
| 3. Social adjustment | 7. Philosophy of living |
| 4. Physical health | |

b. The Curriculum. These seven areas comprise the foundation upon which the faculty has been building the curriculum for more than fifteen years. At Stephens College the curriculum is conceived broadly, for it includes the sum total of the student's college experience, in the classroom and in the library, in the dormitory and on the athletic field, in the laboratory and in the sorority room.

(1) Communications. The communications course, taken by all students, includes instruction in oral and written communication. Particular emphasis is placed upon activities in which girls and women engage, such as conversation and group discussion, letter-writing, and the preparation of reports of the type required in other college courses.

(2) Appreciation of the Beautiful. The humanities survey course cuts across the fields of art, architecture, literature, drama, the dance, and music, and aims to lead students better to understand and enjoy these fields. In addition to offering a variety of appreciation courses, the College aims further to encourage appreciation by giving students

an opportunity to live with the best in art, in literature, and in music. Framed reproductions of paintings are loaned without charge to students for hanging in their rooms; listening rooms and more than a thousand phonograph records provide an opportunity for browsing in music; and dormitory libraries and personal libraries (loaned for the entire school year) in individual student rooms give students the opportunity of living with books suited to their interests and needs.

(3) Social Adjustment. The social problems course, a survey course that includes problems from the fields of sociology, government, and economics, aims to introduce the student to these fields as a preparation for intelligent citizenship. Broadly conceived, social adjustment includes not only city, state, and national citizenship, but also adjustment to those persons with whom the individual intimately associates. Accordingly (since studies indicate that most of the students marry) the College offers a course on marriage and the family that aims to prepare students for successful marriage. Also important in social adjustment thus broadly conceived are the activities of the Extra-Class Division with its student government and elections, its clubs and sororities, and its individualized social and activity programs.

(4) Physical Health. Important in this field are the hygiene courses, physical education courses (activity courses planned in terms of individual health needs as well as in terms of activities in which girls and women ordinarily engage—golf, tennis, swimming, riding, and so forth), and the infirmary with its staff of physicians engaged not only in curing patients but especially in aiding individual students to develop plans of healthful living suited to their needs. Because the College recognizes the importance of relaxation to good health, the hour from one to two each afternoon from Monday through Friday is set aside for *siesta*. Each student spends this hour in her room, where she may sleep or read, write letters or study.

(5) Mental Health. Psychology courses aim not to train students as psychologists but rather to aid them in meeting the problems they face as individuals. Also important from the point of mental health are the various clinics on the campus to which advisers and instructors refer students for help on individual problems: the speech clinic, with its voice recording instrument and with facilities for improving voice and speech; the correctives clinic, with its program for improving posture; the grooming clinic, with its stylists and consultants in dress, cosmetics, and hair dressing; and the reading clinic, with its help for

students wishing to improve their study habits and their ability in silent reading.

(6) Consumers' Problems. The Institute for Consumer Education, recently established at Stephens College, offers courses specifically designed to help students make wise choices and get more for their money. The Institute likewise provides a consumers' clinic where students may come for help on their individual purchasing problems—whether they be that of buying a tube of toothpaste or a typewriter, a fountain pen or a fur coat. Consumer education is not, however, restricted to a single department or institute. Throughout the curriculum (in art and in science, in music and in literature, in dramatics and in the social studies) the consumer's point of view is emphasized.

(7) Philosophy of Living. The single philosophy course offered at Stephens College aims to aid students in meeting the problems they face in formulating a philosophy of life. In addition to constant attention to this area in all fields, particular significance may be attached to the course in religious fundamentals, the weekly vesper services, and the Burrall Bible Class, with its Sunday morning meetings devoted to a non-sectarian consideration of spiritual issues faced by students and with its continuing program of discussion groups and individual counseling.

Although Charters' investigation did not reveal a *knowledge of science in terms of life needs* as an area of need common to all women, the College has accepted such knowledge as a valid student aim, thus actually adding an eighth to the seven basic areas. The general biology course, which includes materials from the physical as well as the biological sciences, aims to draw from science those principles, facts, and attitudes that will be most useful to students in meeting their life needs.

The curriculum at Stephens College is not, of course, limited to activities planned in terms of the eight areas discussed above. In order to meet the individual needs and interests of students, special courses are provided in a wide variety of fields, such as art, music, literature, science, mathematics, home economics, secretarial training, child study, modern language, history, and creative writing. Even in these special courses, however, constant emphasis is placed upon selecting from the field those materials that relate to life and living. For example, the course Introduction to Art gives students experience in using varied media of artistic expression: the paint brush, crayon, modelling clay, and the camera. In providing this experience art is, however, constantly

related to everyday life—to the design of silverware and drinking glasses, of shoes and hats, of wallpaper and book jackets.

Although the curriculum at Stephens College is built upon the basis of a study of the activities of women, it is administered upon an individual basis—the course of study for each student is based upon her individual needs and interests, with these needs checked, however, against the several areas of activity found to be common to all women.

Since the curriculum at Stephens College includes not only courses, but also the sum total of the student's college experience, it is significant to note that apart from course work the College provides an environment that leads to continual experience in terms of the activities common to women. Representative of such experiences are taking part in organized extra-class activities,¹⁶ living with good pictures and outstanding books, participating in the services and other activities of Burrall Class, and using such clinics as the grooming clinic and the 'better speech office.'

c. *Student Guidance.* Indispensable in an educational program committed to individualizing the curriculum in terms of student needs is an effective program of student guidance. At Stephens College every teacher is the adviser of ten students. The adviser's function is to lead the student to think and act intelligently regarding her needs and problems. Accordingly, he is concerned with the student as a complete personality, taking into consideration her extra-class life as well as her academic work.

Before a student is admitted to Stephens College one of the college admissions counselors interviews her and her parents in their home. The purpose of this interview is not only to aid in selecting students but also to aid in determining the student's needs. For each student admitted, the College has reports not only from the admissions counselor but also from her parents, her high-school principal, and from the student herself. These blanks, together with achievement and interest test scores, correspondence, and any other information the College has regarding the student, are placed in a folder and given to her adviser a week or more before¹⁷ registration. This makes it possible for the adviser before meeting the student to become acquainted with her attain-

¹⁶ So important are such activities regarded at Stephens College that the director of extra-class activities is coördinated in rank with directors of the academic divisions.

¹⁷ Two weeks before the opening of school in the fall, faculty members return to the campus for conferences and to plan the year's work.

ments, her interests, and her needs. At the time of registration the adviser discusses with the student the various opportunities available on the campus (both in and out of the classroom) for aiding her to meet her needs and further explore her interests. Since during the two days of registration each adviser aids only ten students to plan their courses, these important opening conferences can be conducted in some leisure.

At the close of the third week of school, teachers, residence-hall counselors¹⁸ and sponsors of extra-class activities prepare preliminary reports regarding the initial adjustment of each student. These reports are sent to advisers, who hold conferences with their advisees. The purpose of these conferences is to aid the student to make an inventory of her program (both class and extra-class) in terms of her needs, and to help her define the problems upon which she is to work immediately.

Thereafter, at the close of every six weeks' period, teachers, advisers, and residence-hall counselors report on the progress of each student. These reports, together with the scores of any standard tests (such as vocational interest tests, adjustment inventories, and vocabulary tests in major fields of knowledge) that the student may have taken, are sent to the adviser. It is significant to note that teachers' reports include not merely a statement regarding the student's mastery of subject matter, but more particularly statements regarding her interests, her dependability, her initiative, her use of time, and her social development. On the basis of these reports, plus test scores and the student's own knowledge of her attainments, the student, in conference with her adviser, writes a letter to her parents in which she describes (1) her achievements of the past six weeks, (2) her present shortcomings and needs, and (3) what she plans to do the coming six weeks in working on these needs. It is, of course, most important that the student herself write the letter home, for this places upon her the responsibility for charting her progress in terms of her individual objectives. Copies of this letter are filed in the adviser's folder, and are sent to the student's residence-hall counselor and to her admissions counselor, who from time to time during the year visits in the student's home and reports to her adviser any information that may help him in working with his advisee.

The adviser cannot, of course, be an expert in all of the varied problems (health, grooming, posture, social adjustment, voice, reading ability, and so forth) that students face. He does, however, as the student

¹⁸ Each of the college residence halls has in charge of it a trained personnel worker whose entire duty is to advise with the students in her hall.

becomes aware of such problems, refer her to a specialist who can aid her. The adviser thus becomes a coördinator who helps the student become aware of her needs, aids her in planning a program (class and extra-class) to meet these needs, and guides her in charting her progress in terms of her individual objectives.

d. Faculty Research. In order to develop and put into operation a curriculum in terms of student needs, continuing research must be done on such problems as those relating to the definition of student needs and interests, methods of teaching, and evaluation of results. Accordingly, some sixteen years ago Stephens College organized a research department under the direction of W. W. Charters. For two weeks in the fall and for several days at different periods during the school year, Dr. Charters is at the College to work with the staff. Throughout the year a resident assistant is available for aiding instructors in their research.

If a teacher wishes to make a study, he is given help in planning it, and provision is made for such assistance as is necessary. Although a large percentage of the faculty engage in research, no instructor is required or urged to 'make' a problem.

An important aspect of the research program is the series of faculty conferences, which extend over a period of two weeks previous to the opening of school in September. During these conferences the faculty discusses studies that have been completed or are in process and makes plans for initiating individual or group investigations. A significant value of the conferences is, of course, the opportunity given new instructors to become acquainted with the educational program of the College.

So different are the objectives of Stephens College from those of the graduate school or from those of most other institutions in which instructors have had experience, that the problem of the in-service training of teachers becomes unusually important. The research program, with its opportunities for studying student needs and methods of meeting them, and with its provision for faculty discussion of completed studies, makes an essential contribution to such training.

e. Evaluation. Since sixty percent of the students who graduate from Stephens College continue their education in institutions of higher learning, the College must use as one means of evaluating its program (which has been planned in terms of the life needs of students) the success of its students in attaining the usual academic standards. Accordingly, each year the College gives to all students a battery of American Council Sophomore examinations. Although the Stephens College cur-

riculum is not planned in terms of the objectives measured by these tests, test results indicate that Stephens College students fare well, when compared with the national norms, in terms of their ability.

A more direct means of evaluating a junior college in terms of the college-preparatory objective is to study the achievement of its graduates in the colleges and universities to which they transfer. A follow-up study of the grades made by alumnae in the sixteen universities to which Stephens graduates most frequently transferred during the years 1933 to 1938 reveals that in fourteen of the sixteen universities Stephens graduates made higher grades than they did during their junior-college years.

Much more important than academic success, and much more difficult to measure, is student achievement in improving traits of character and personality that form the basis of effective living. The College has little data of an objective nature on such achievements.

4. General Education in Other Junior Colleges

Reorganized educational programs in terms of student needs are not at all limited to the colleges here described. The country over, junior colleges are experimenting with new courses designed to meet student needs. In a recent study Carpenter¹⁹ reports finding 349 new-type or enriched courses in junior colleges. A good number of these courses are isolated attempts by individual teachers to vitalize their teaching. On the other hand, a number of the innovating courses that Carpenter reports are in junior colleges (such as those at the Long Beach Junior College and the San Bernardino Valley Junior College and Menlo Junior College in California, and the Eastern New Mexico Junior College, to mention only a few) where fundamental curricular changes are being made in terms of student needs.

III. CONCLUSION

As a relatively new institution, unbound by tradition and potentially capable of serving the needs of millions of young people now out of school and unemployed, the junior college may well be at the opening of a period of growth unprecedented in any unit of our educational system. If such is the case, however, the junior college must free itself from the dominance of universities and colleges and forge new curricula in terms of the life needs of youth.

¹⁹ Mimeographed report by W. W. Carpenter, of the University of Missouri. 1938.

CHAPTER VIII

THE GENERAL COLLEGES

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I. INTRODUCTION

A quick look back over the past ten years shows that much of the major experimenting in general education has been carried on by universities. Large public institutions particularly are, by their very nature, hypersensitive to social change and the impact of new forces. To these flocked the bulk of the growing and increasingly varied student population since the Great War's end. Responsible to, and financially dependent upon, the people of a community or a state, these universities began to awaken sharply and sometimes painfully to a sense of democratic duty. They began to acknowledge that they had other functions than the training of scholars, researchers, professionals, and leaders, although to train these must still remain an important aim. They recognized that they must not merely admit, but also serve well and fully with useful studies, not only the sons and daughters of an intellectual and social aristocracy, but also the youthful offspring of 'white-collar' workers, skilled and semi-skilled laborers, farmers, and still others rendering personal service. All of these, it is clear, must be given by public institutions every chance for 'higher education' (in its general sense of continued development of whatever powers they may have) in order that they and the community or state may benefit.

Change generates conflict. Conflict is expressed in action and behavior. In this change institutions behaved in various ways. Some granted, under compulsion, the necessity for admitting all comers who had hurdled high-school graduation. But students once admitted, the

universities stuck to their old pattern of belief in the dual scholar-professional function and stepped up their eliminations. Their slogan might be stated bluntly as, 'Take them all in, but if they cannot conform to our standard scholar-professional pattern, flunk them out again.' How soon it was wise to discard the non-conformists was determined in part by enrollment, prestige, and income factors. If administration and faculty believed that large numbers brought either institutional prestige or wanted income, the time of ejection was delayed; if not, it was accelerated. Educational thinkers, however, were not content with this solution. They made studies of college student mortality and migration. These revealed a shockingly high drop and withdrawal rate, the causes of which were not always clear or valid, and the results of which in terms of individual frustration and consequent apathy led to the inevitable conclusion that higher institutions might be doing as much damage as good to the total American social structure.

When an individual, such as a student, is damaged by an attempt to force him into an institutional pattern, such as a university, into a college within that university, into a department within that college, and into a curriculum within that department, two things eventually follow in any institution determined to serve students and society rather than to maintain a set pattern. The one is the critical diagnostic examination of the student to find out why he is a 'misfit'; the other, a similar analysis of the pattern of courses, materials, and teaching that declared him 'misfit' and rejected him. Both drove sensitive and self-critical universities into the rapid and wide-ranging development of personnel, testing, and guidance activities, partly to find efficient ways to make the student fit the institution. It likewise drove them to start retailoring their curricula to 'fit' the students. Some experimenters moved into the field of vocational guidance and training on the all-or-nothing notion that if we could train and place all youth in jobs, all would be saved, our institutional function performed, our duty to the people and community or state discharged.¹ This they called 'training for making a living.' Others moved into analysis of, and experimentation with re-vamping or wholly rethinking and remaking, 'liberal' or 'cultural' education in the universities. They called this 'training for living.'

Out of this general and growing recognition of the fact that youth is neither merely a potential isolated scholar-brain, or research mind,

¹ See Chapters XI and XII on vocational-professional training and its relation to general education.

nor merely a future pack-burro, or plowhorse, arose the public institutional drive to develop what has come to be called 'general education.' It is a recognition that students are biological, emotional, esthetic, creative, practical, social, political, and economic beings as well as minds-in-training. Hence, many ways have been, and are being, sought in public universities to develop a teaching and learning environment wherein may be cultivated these many other sides of the human personality. It is the intent to develop young people into vital, sensitive, and awakened *persons* in order that they may live more richly and, in consequence, serve their society better.

As a corrective to the kaleidoscopic quality that had come to mark the elective system by the time of the World War, universities and colleges began to introduce orientation and survey courses² that were designed to bring knowledge together into relationships that students might find useful and illuminating. For a decade such courses were tried here and there, with satisfaction in many places. But many educators were becoming convinced that nothing short of a fundamentally reorganized curriculum could solve the problem of the first two years of the college program.

II. THE UNIVERSITY OF WISCONSIN—THE EXPERIMENTAL COLLEGE

The first major trial in this direction by a public university was The Experimental College of the University of Wisconsin, which lived from 1927 to 1932. The program of this college was based on two major beliefs. First, it was believed that the college should be a place where students and teachers lived and studied together—a community of learning. This required a small unit—the Experimental College was limited to about 200 students—and it required the students to live together in a house with as many of the faculty as possible. Second, it was believed that students and teachers should study the life of people at one time and place—hence the choice of the Athenian civilization of the fifth century B.C. as the subject of the first year's work, and the American life of the nineteenth and twentieth centuries for the second year's work. Teachers were not usually experts in the study of the culture with which the group was concerned; they were supposed to study *with* the students, rather than to teach them *about* a culture.

Much misunderstood and misinterpreted, both from within and without, in a sense buried by over-publicity, that College nevertheless

²B. Lamar Johnson. *What About Survey Courses?* (New York: Henry Holt and Company, 1937)

stimulated a vast amount of critical thinking about higher education in America. Reactionaries and traditionalists, disturbed and made uneasy, began to seek new justification for their academic content and processes instead of resting placidly on dogma, *clichés*, and rules-of-thumb. Educational progressives, on the other hand, warned by the closing out of the Wisconsin experiment, tried to make their studies deeper and their experiments and processes more realistic. The secondary schools, largely apathetic in the belief that they were 'dominated' by higher education and could not move until the universities, colleges, and accrediting agencies moved, stirred restlessly and started to question if their release was at hand. Therefore, while it cannot be assumed that Wisconsin's effort was the first or the only ferment loosed in higher education, it was nevertheless a powerful one, the perhaps unnamed and not fully recognized results of which will long be felt.

On the positive side, the Experimental College showed clearly that the trend of general education must be towards synthesis and unity of materials and curricula and therefore away from the cancerous cell-division growth that has been common to most of our present courses and curriculum-building. It demonstrated the importance of presenting to students whole pictures—background from the experience of the race, foreground in contemporary conflict, and focus of interest in particular present problems—rather than fragments only of minute portions of classic background. It demonstrated the difficulties of presenting such whole pictures, the need for teachers who themselves can either see such whole pictures or who, starting with the general-education point of view, are able to grow to see wholes and who are able to interpret as well as analyze, to give life and meaning instead of searching out nothing but facts and detail. On the negative side, it showed how fatal it may be to understress wide-ranging personnel studies of the students subjected to the new curriculum and to fail to set up every possible means of evaluation to determine and make known the results of such an educational experiment. It indicated further the present impossibility, because of lack of teachers, materials, and costly space, of giving general education to large numbers solely by means of small classes, conference methods, and similar devices demanding prolonged individual contact of teacher and student. Hence, while the Experimental College is no longer an institution, its influence is still felt and will continue to be felt wherever critical thinking and further experimentation in higher education goes on.

III. THE UNIVERSITY OF MINNESOTA—THE GENERAL COLLEGE

1. Purposes

The second public university to launch an experiment in general education was Minnesota. Administration and staff had been thoroughly sensitive to social and educational change. Early self-study brought fact-finding on student mortality and migration. Personnel studies of the students themselves showed that a considerable proportion were not being adequately served. Many were going only a step on a long narrow trail to a specialty and then having to withdraw without seeing more than a useless fragment of that trail and nothing of the broad terrain. Others, under parental or social pressure and unwise guidance, were put on the, for them, wrong trail and again quit or were sent home at best with no profit, at most with an unwarranted sense of failure and frustration, and again with no conspectus of human life, knowledge, and culture to buoy up their spirits or widen and deepen their understanding or intensify their life satisfactions in years to come. These personnel studies likewise indicated that *intelligence* was not a single thing, that the student who achieved high grades was not necessarily generally *intelligent* or the poor achiever in any given course or curriculum a predestined and uneducable dumb-bell. They found students with special kinds of creative intelligence in art, or music, or writing who appeared moronic on examinations in science or economics; others with an almost uncanny intelligence in understanding themselves and others, and able to sway, to lead, to help others, but who, nevertheless, might draw nearly a blank in mathematics, formal logic, or mechanics. There seemed, too, to be other intelligences in practical matters, appreciation, speech; and still other useful and important phases of human activity. In the words of the late President L. D. Coffman:

On the one hand, the study of our situation showed that there were several groups of students whose interests and needs were not being cared for by the existing colleges of the University. Furthermore, it showed that the differentiation of the materials of instruction has been carried to such a point that it is practically impossible for a student to receive an overview or a general view of any field of human learning. Consequently, I became interested in the establishment of the General College for two reasons: One, to provide an opportunity for the study of the individual abilities, interests, and potentialities of a very considerable number of young people whose needs were not being met elsewhere in the University; and second, to experiment with a new program of instruction, a program which involves the revamping,

reorganizing, and re-evaluating of materials of instruction with a view to familiarizing students more with the world in which they are to live and which used techniques of instruction which have not been regarded as pedagogically respectable in many colleges and universities.

Frankly, I should not be interested in a college or a university which was maintained solely for morons and backward students. I am interested, however, in a reorganization of our educational program which will serve students who desire to come face to face with the problems upon which they must exercise judgment later on. Such a college will not leave the synthesis of learning to chance, but it will through its very offerings and the manner of their presentation help to show that learning is not made up entirely of disparate elements. I believe that it is almost impossible for a student to get a liberal education any more, due largely to the fact that knowledge has been so attenuated that only fragments and pieces are presented in any course. So that, while we are studying the students themselves and trying to learn what we can about them, we are at the same time working with materials and techniques in the hope that we can show that liberal or general education is not a myth but something that can be realized.

Following this charter from President Coffman, the General College, launched in the fall of 1932, continues experimentation: (1) to discover the student, his needs, interests, abilities, aptitudes, attitudes, insights, methods of thinking, powers of appreciation, and the conflicts and pressures affecting him; (2) to discover the processes of change, the conflicts and problems in the society of today and tomorrow upon which the students now and as future adults must exercise judgment; and (3) in the light of these analyses, to experiment continuously towards the development of courses and methods to meet both the analyzed needs of a student as a person and as a member of society and the needs of society itself.

2. The Study of the Students—Background

In the six years of the life of the General College, approximately 6000 have at one time or another been registered in its courses. Upon all of these some information has been gathered. At the very least upon each student we had fairly full knowledge of his performance in the high school, of his test standing in so-called 'academic intelligence,' his ability in formal English, his rank in his high-school class, his parentage, his chief extra-curricular and social activities, his most- and least-liked subjects, his sports and games, and his vocational interests (as measured by the Strong Vocational Interest Test).

In addition to these items of information gathered on entrance, we set up in Freshman Week six hours of diagnostic testing. This has been experimental, has applied to more than two-thirds of the total entering student enrollment in any given year, and the results will be reported in due course. Moreover, in the first three years we interviewed many hundreds of our students for the purpose of formulating sound bases for a thorough-going study of them.

In 1935 and 1936, the bases for such a thorough-going study were laid out and with foundation and university support we devised an organization permitting us: (1) to collect full data concerning students on a research basis, to continue counseling and guidance service to students, and to translate research data into student and staff usefulness; (2) to provide a program of clearly defined research projects covering many phases of late adolescence and with techniques of continuing applicability to a large university situation; and (3) to provide for distinctive research not covered by other current studies of adolescents, such as those of the Thayer, Zachry, and Keliher Commissions of the Progressive Education Association, of the American Youth Commission, of the American Council on Education, and others.

During the period 1936 to 1938, this program was carried on with the intention to supplement these experimental studies being made elsewhere. We have applied tests and measurements and interview techniques to large numbers of students and to many kinds of students with the expectation of gathering a general, concrete, and detailed picture of the late adolescent youth in the University of Minnesota habitat. Against this background of general comparable information, we expect the marked individual differences of separate students in our care to stand out in clear focus. To achieve this end, we have used not only test and examination and questionnaire material but also clinical and qualitative material, such as is gathered in interviews, observation of behavior, and talks with parents, teachers, and friends.

3. The Study of the Students—An Analysis of 1314 Individuals

We have gathered and completed the summary and analysis of 76 different items of information about each individual in a total group of 1314 students in the freshman and sophomore years of the General College. From these analyses, we have drawn the general picture. As a check upon its validity, we took a careful sample of entrants a year later and compared them with the 1314 and found them similar. With like checks from time to time as the college progresses, we can determine

whether our population is relatively stable and therefore whether our generalizations will continue to apply.

4. The Study of the Students—Subsidiary Researches

Arising out of this general study here, we have made the following subsidiary studies:

First, an analysis has shown that the varied occupations and the education, as well as the birthplace, of both parents tend to predetermine to a considerable extent the attitudes and adjustments that students bring into their classrooms and therefore to some extent their benefit or loss from the educational process—a finding strikingly similar to that reported by Howard Bell in the Maryland studies of a similar predeterminism of youth's life patterns. Our administrative, research, and teaching staffs now have under consideration therefore the problem as to whether general education should attempt to oppose and upset this apparent predeterminism, or to make the student realistically aware of it and 'adjust' him to it, or to do neither in one case or another.

Second, a study has demonstrated the nature of the relation between a student's maladjustment and his academic achievement. Curiously enough, there is a dual trend here of much significance for education. In some cases maladjustment in terms of pressure, worry, and fear acts as a more or less complete inhibitor, barring the youngster from school performance anywhere near his real ability. In other cases, the same types of pressure, worry, and fear drive him to seek escape into study from the life brutalities that harass him and thus lead to 'fine' academic performance.

Third, another study has been aimed to determine the relation between tested maladjustment and clinically diagnosed maladjustment, in part to see whether or not clinical interview and test findings bring the same results, since in most cases both tests and clinical interviews identify major individual problems. We have some evidence of being able to use personality and attitude tests as time-saving devices in an extensive personnel program.

Fourth, a study has been made of the success and failure of the counseling and administrative staff in predicting student achievement upon transfer from general education in the General College to the specialized academic and professional curricula in other colleges. This study has already led to a far better service to students than formerly in determining their aims, clarifying their achievable goals, and in

distributing them within and without the university to those ways of life—either in further study, or in getting and holding jobs, or in marriage—wherein they will find their greatest success and satisfaction.

Fifth, a research was conducted to reveal by the test and retest technique the stability or changeability of students' attitudes and achievements under the impact of the college and classroom situation. From this study we have already begun to establish norms of change in attitude and opinion analogous to a norm of growth in the field of achievement. As our instructional staff become aware of these norms and measured changes, they are stressing more and more in their classrooms attitudes important to student-learning, problem-solving, and interpretation in a given field. Thus in science, shifts in attitude from mysticism and intuition to critical and realistic thinking are pointed up.

Sixth, a minor study involves the application of factor analysis to student test and retest performance in thirteen attitude and achievement scales. This has led the research staff to assume that by means of these scales they will find five basic areas of personality, and they are now regrouping and rescoreing the original tests for each of the five factors in order to develop five new tests of greater validity. The results of this testing are vital to counselling. They also are becoming key materials in both personal and vocational orientation core courses.

Seventh, a study based on the results of the Strong Vocational Interest Test was given to three successive classes of General College students in order to arrive at a distribution of the measured occupational interests of our groups. By taking cognizance of this distribution of occupational interests, we have been able to take our first steps towards refocusing materials in many courses around the interests that will stimulate higher student motivation than has hitherto been possible. Thus, knowing that a majority of our students have the pattern of vocational interests of 'white-collar' workers, we can color the teaching materials in physics, chemistry, and technology, in art, or in literature with these interests revealed in our students.

Eighth, a study has been made of the relation between records on the Strong Vocational Interest Test and attitudes and scores in achievement tests.

Ninth, a subsidiary study has been made of the adjustment of students who continue and of students who drop out of college, in order that, in counselling and teaching, we may know better how to serve both those likely to continue and those likely not to continue.

5. Study of 100 Cases

In order to validate our general findings, a second major study was launched by the research staff and its technical advisory committee from the university as a whole. A careful sample was taken of 100 General College students, covering the entire range within the 1314 previously analyzed on 76 different items of information. Field work in the study of the student and his family and social environment on each of these 100 students covered more than fifteen months. This field work is now complete and the data covering seventy objective items for each family are being prepared for machine tabulation. Three trained case readers have summarized clinical data about the students' families in terms of twenty-nine scales designed to measure probable goodness of the family as an environment for the student. Three other trained case readers have summarized and are interpreting clinical data about the students themselves in terms of sixteen scales measuring actual student achievement in as many directions. In all, the student, his parents, and various others of his community and social group who have contact with him have been subjected to more than one hundred pages of questionnaire-interviews, each case requiring from a minimum of fifteen to a maximum of thirty-five hours of a skilled research worker's time.

6. The Study of a Group of Young Adults

It was clear to the staff of the General College that invaluable as these personnel studies of the students in college might be, they were still not enough. While the needs of students as they are in college are vital ones and the school has a responsibility to serve these needs, nevertheless any educational program worth its salt must, if it is to have vitality and meaning, know also and foresee the problems, activities, and attitudes of these students as they enter upon and continue in their adult life. Education, we assume, cannot be only a process of present conditioning nor, at the other extreme, only a process of preparation for the future. It must include both in careful balance. Therefore, in order to understand the future personal and social activities and problems of the young adults most like the persons our students will become, we set out to find and to study such a group of young adults. Again, with a special and responsible research staff advised, counselled, and helped by the entire staff of the General College, and a technical advisory staff of trained researchers from other colleges of the university, we began the Adult Study in the fall of 1936. Now in the fall of 1938 we are completing it.

Again, it was our intent to get a general picture of the whole population and then make an intensive study of a carefully sampled group. We therefore selected an original wide sample of 1600 persons, 800 of each sex; 800 who entered the University as freshmen in 1924-25 and 800 in 1928-29. We drew them proportionately from four colleges and set up our sample also proportionately upon the numbers who had spent one year, two years, three years, and four years or more in the University. We checked our original sample to find it representative by drawing from the Registrar's Office and the Alumni Association eighteen items of pertinent information on each of the 1600 former students. With this total sample of 1600 we checked addresses. We secured a list of 1400 known, reachable, former students.

The staff then spent some thirteen months in devising a fifty-two page printed and illustrated questionnaire. This covered pertinent questions on four areas of adult activity and interest: (1) earning a living, (2) home and family life, (3) personal life, and (4) social and civic life. Within each of these areas we set up batteries of questions probing for the problems, activities, and interests of the adults involved.

The response to this inquiry has been extraordinary, since nearly 70 percent of the 1400 questionnaires have been returned filled out in full. Moreover, more than 500 of those returning questionnaires offered their coöperation for further study of their problems, activities, and interests through interview. Two hundred of these were selected again on a careful sampling basis to represent the entire range of the whole group of 1400, and these 200 were interviewed between November 1, and June 1, 1937 to 1938. The data from both questionnaire and clinical interview are now in the process of analysis and interpretation.

7. The Building of the Curriculum

a. Using Data from Studies. The findings and interpretations of all the studies made by the personnel research staff and of many other supplementary studies made in English composition classes, in art and music classes, in speech, in social studies, and in science are being drawn together. While in process, as tentative conclusions are reached, they are being fed to the administrative, teaching, and curricular revision staffs of the college for further interpretation and especially for application to curricular revision.

From these studies of adolescents and adults we have gathered information on what young people think they need in preparation for marriage and what problems young adults have met that they wish the

schools had given them more information about. This information is being used in planning the content of the new core courses.

The coördinators for both Home Life Orientation course and Individual Orientation course are finding in the study of adolescents relevant material relating to the conflicts, pressures, frictions, problems, compatibilities, and satisfactions of family life.

For example, part of the Individual Orientation course deals with leisure time. The studies have revealed an accurate picture of the number and kinds of leisure activities participated in by our students, by their parents, and by our group of young adults. Data showing discrepancies between the amount of leisure devoted to a given activity and the degree of enjoyment derived from it are being used to assist in fostering the classroom interests that may be met with opportunities for their expression; to build skills and habits of reading, art, music, and motion picture appreciation; to give training in sports, games, photography, and the like; in general, to supply what will make possible the fulfillment of interests at present and in adult life and will arouse hitherto undeveloped resources for leisure satisfaction. For example, our studies show that 'travel' ranks high in enjoyment but low in achieved participation among both students and adults; 'conversation with the family' ranks high in participation but low in enjoyment. We must determine, therefore, whether in general education we can find ways of inducing our students to travel more and talk to their families less, or to travel vicariously and explore the 'realms of gold' from the armchair, or to be increasingly content to stay at home and increase their enjoyment in talking with their families.

Again, of significance to the instructors in studies pertaining to home life are data indicating that neither the young people in college nor their parents have a realistic attitude toward family income. In general, we find parents of our students are not willing for their children to be married on less than \$200 a month—an income that only half of the students entering the University in 1924-1925 have now achieved. The young people in college would be willing to attempt marriage on \$140 a month, yet we find that the majority of them have little or no conception of what a dollar—or any multiples of one—may mean in terms of consumable goods or real satisfactions. Here again, moreover, the results of the Adult Study indicate that only half of those who entered the University in 1928-1929 have achieved an income of as much as \$140 a month ten years after college entrance, although most of them are married.

In connection with vocational orientation we have discovered that the fathers of most of our students are engaged in clerical, small business, white-collar, sales, minor executive, or skilled-trade occupations; that most of our students, particularly the men, profess a vocational choice in the higher academic, professional, or scholarly fields, in spite of the fact that their measured interests cluster definitely in the areas of occupation of their fathers; that the problem is further complicated because the parents of these students are, by and large, insistent upon their sons and, to a slightly less extent, their daughters, attempting professional and academic training. In consequence, counselling and all curricular areas dealing with occupational orientation and adjustment thus raise a critically important problem of general education that needs a frontal attack not only at Minnesota but also in the nation at large, in classrooms and out. With this evidence we are able to put steel into our work in vocational orientation. In the case of women we have further discovered that those who are married and are raising a family show more favorable responses to indices of general adjustment and morale than do those who are single and employed in professional work. The married group is also superior to the single group in economic status. These findings are of great importance to general education, where they will find many applications.

Analyses of the Adult Study are being so made as to reveal differences between graduates and non-graduates, single persons and married persons, small-town groups and metropolitan groups, groups engaged in different types of occupations, and groups of high and low college aptitude; differences on such general factors as job-satisfaction, general adjustment morale, economic status, cultural status, income — all of which are important teaching materials; and differences on such specific factors as activities, problems, and points of view in the four major areas. For example, we have found that the group with low college aptitude obtained more favorable scores on indices of job-satisfaction, general adjustment, morale, and leisure participation and enjoyment than did the group with high college aptitude. We must from this study concede that groups of low academic aptitude and poor scholarship may become superior adults in these respects, and, conversely, that scholastically gifted persons may not become the most satisfactorily adjusted adults, a finding that, if further corroborated, must have extraordinary influence on the future of all education, both general and vocational-professional. Further, comparisons between graduates and non-grad-

uates have revealed that they do not differ so widely as is popularly supposed. The patterns of their activities and problems in personal life, home and family, and socio-civic affairs are similar. Both graduates and non-graduates use just about the same kinds of patent medicines, employ similar methods in managing their children, and enjoy the same motion pictures and radio programs. Ten to fifteen years afterward, the amount of education had beyond the high school does not seem to be a differentiating factor among adults in such particulars. By thus uncovering the major activities and problems that former students now face, our study of adults is furnishing us with many such clues as to the proper content for a general education that may be more effective in helping young adults to meet their individual and common problems of life and society.

When full reports on all our studies are available, we should know the general character of our student body and should be easily able to determine by clinical and observational techniques individual variations, as students in such large numbers have never been known before. In the light of this new knowledge and with continuous reference to the study of changing society, particularly in Minnesota and the Northwest, we are continually revising our teaching materials and methods to make them more effective in 'culturing' our students with general education. It was not possible, however, to await these studies of the student or of society before we developed our first curriculum. In the beginning of the College, we approached the problem of curriculum-building quite differently. We made 'possible guesses' as to the needs of students and the adults they were to be and devised our curriculum accordingly.

b. The Early Curriculum. We said that men and women are biological animals, living in a biological world, with a continuous succession of biological, personal, and group problems. Our *first comprehensive 'area,'* therefore, in the curriculum was devised to meet the needs for understanding problem-seeing and problem-solving in this important field. In this area with these objectives, the usual academic courses were not suitable, since they were fragments of specialties, such as protozoölogy, parasitology, bacteriology, and embryology. Therefore, we devised a curriculum in human biology and have experimented to improve it while awaiting the concrete and detailed knowledge that is evolving from the personnel studies of need; for example, from what we have learned of the health habits, practices, and attitudes of our students and of the former Minnesota students, many of which, in the

light of current medical knowledge, are bad. Therefore, in the curriculum in human biology we are applying this knowledge to both content and method with already some demonstrably favorable results.

We said that man is an animal surrounded by the powers and principles of physics, chemistry, and technology in a world full, therefore, of both extraordinarily useful and at the same time potentially dangerous powers and gadgets. To this world, in general education, we assumed our students must be oriented in order that they may in themselves and in their society close the present wide gap between technological advance and social lag. The usual courses in heat, light, electricity, and mechanics; in organic, inorganic, qualitative, and quantitative chemistry were over-specialized and time-consuming for the processes of general education. We, therefore, devised a *second comprehensive area* for the purpose of orienting students to this physical, chemical, and technological world, and have continually improved the courses and methods while awaiting new knowledge of how further to improve them on the basis of the findings from our studies of our students.

We said man is a psychological bundle of thoughts, desires, emotions, conflicts. Of vast importance to him for his satisfaction and success in common living, both as a person and as a member of a group, is understanding of why he himself and why others behave as they do. Therefore, we developed a *third comprehensive area* dealing directly and realistically with the psychology of human development and personal adjustment and the practical applications of human behavior and personality in various fields of men's group activity. Again, we await new knowledge arising from our other resources to apply directly to the reorganization or improvement of this area in general education.

We said many of life's greatest satisfactions and drives, or miseries and despairs arise from the relation involved in marriage and in home and family life. We therefore built a *fourth area, euthenics*, with teaching and materials from many quarters—home economics, psychology, architecture, medicine, and business administration—and with the attempt to synthesize the generalizations and knowledge in these special fields into an integrated attack upon the problems of the home and the family.

We said man is a communicative animal. He needs to pour himself out to others in speech and in writing and he needs to be understood in his meanings and intentions. We, therefore, built a *fifth area, oral and written communication*, designed not to turn out golden-tongued orators, actors, and after-dinner speakers nor great novelists, poets, and

essayists, but instead designed to teach students to make themselves clear to their fellows in common conversation, in interviews, in personal letters, and reports.

We said man derives delight and satisfaction from life in large measure proportionately to his sensitivity to things of beauty in the plastic and graphic arts, in music, in literature, in motion pictures, and the stage. Accordingly, to this end we devised a *sixth comprehensive area* in the general arts. We have worked steadily for six years to improve the offerings in this area.

We said man is, according to his capacity and his individual and group needs, a responsible member of human society in the combined relationships of small neighborhood, greater town, city, state, nation, and world. We, therefore, built *four areas pertaining to social relations*, each designed in a different field to awaken him to the problems of his society, to sensitize him to his responsibility, and to prepare him for participation and problem-solving in his adult life. These four areas were *contemporary affairs, economics, social problems, and history and government*.

Under the guiding pressure of our findings both in the personnel studies and in curriculum research, we have thus far moved steadily towards simplification. Therefore, beginning in the fall of 1938, our experimentation is resulting in further integration of these ten comprehensive areas into four major areas of human need. The logic of these categories, based upon our empirical studies, is as follows:

c. The New Curriculum.

(1) *Personal Life Orientation.* We assume that man is first a being alone, a unit by himself. As Matthew Arnold once said, if I may paraphrase him, like islands separated by a turbulent sea "we mortal millions live alone." Therefore, man has need of all the assistance that specialists in psychology, medicine, recreation, esthetics, art, music, literature, and other fields can give him that he may learn to understand himself as a whole being, not as one composed of fragmented special functions, such as buyer, worker, voter, father, radio-listener, husband, hospital patient, or whatnot, with none of these fragments related to others in the same individual. He needs to develop a philosophy of life, a point of view towards the world that will keep him growing in deeply satisfying situations or will make him staunch against the "slings and arrows of outrageous fortune" when life's storms crack around him. It is our intention, therefore, to experiment in the years to come in the

light of the personnel studies with a core course in personal life orientation.

(2) Home and Family-Life Orientation. We assume that man is not only a being alone but also a member of an intimate family group. He is so as child, as adolescent, as youth, as adult. In each stage of growth within the family his problems of adjustment change, his insights must grow. He must see the home from many angles, as a pattern to be woven out of the conflict and adjustment of an intimate group of personalities; as a plant for living, needing planning both for its establishment and its maintenance and repair; as a retreat from the world of self and the world of the herd; as a source of life-long satisfaction and enjoyment or of misery and of pain, depending upon how carefully he sees both the forces and the materials that go into making of home and family life and how well he is able to make these forces and materials play towards unity, growth, confidence, and hope instead of towards disruption, fear, and despair. Hence we are experimenting with the problem of building a core course in home-life and family-life orientation, making use therein of the materials we already have built and used successfully.

(3) General Vocational Orientation. We assume that, in addition to being a person alone and a member of the family, an individual also has, or wants to have, a satisfying share in the work of the world. While vocational-professional training will take care of his actual education in skills and of the techniques specifically related to his future job, general education has another responsibility. It is that of showing to American youth far more realistically and concretely than it has ever been shown, the work of the world; the essential dignity and worth of all personally satisfying and socially useful human labor; the inter-relatedness of all such labor and the varieties of human skills, capacities, attitudes, and other traits of personality and skill that make a man or a woman effective, satisfied, and growing in the occupation. Therefore we are developing a core course experimentally in this area and are attempting to incorporate materials and concepts from the personnel studies and from our past experimentation in the ten curricular areas that have been found to be pertinent and useful.

(4) Social and Civic Orientation. We assume that man is not just a being alone, a member of a family, and a work animal, but that he is also a more or less responsible participating member of his community, large or small, and that in democracy he must be as fully responsible as he has the capacity to be. It is therefore the duty of general educa-

tion to introduce him to the structure and processes, to the conflicts and problems, of his immediate society and of distant society, present and future. Therefore, we are attempting to integrate our findings gleaned from our past curriculum in the separate fields of economic, political, and social problems and of contemporary affairs into this single core course.

8. Evaluation

From the launching of the General College, the administration and staff were not content to start any single experimental procedure without setting up concurrently an evaluation process to give critical judgment as it proceeded and to estimate and define results for our own and others' use. We were not content to make any assumptions or to posit any theory without setting up methods of checking and rechecking its workability and validity.

In consequence, a great deal of evaluation has been carried on. Foremost among the evaluating agencies has been the University of Minnesota Committee on Educational Research, which developed over a period of five years an extensive experimental program of course examinations and of comprehensive examinations. They, with the members of the research and teaching staffs of the General College and their assistants, tested standard examinations and examination processes and devised many new ones. All were subjected to the closest thinking and scrutiny and to the validation process in so far as these are yet known. The Committee is still carrying on this process of evaluation.

The findings of the Committee on Educational Research are coördinated closely with the findings of the administrative, research, and teaching staffs of the General College and integrated further with the personnel research previously described. In addition, many members of the University staff in various colleges have contributed to evaluation formally as advisors and technical research experts, and informally by continuous conference and creative criticism. Beginning September 1, 1938, an expert full-time evaluator, advised and assisted by an all-University committee, is to draw together all past evaluations and set up thoroughgoing critical processes for the study of the results of all the General College experimentation. All phases of this evaluation, as well as the findings of the personnel and curriculum studies, are in process of preparation for reporting to our colleagues and associates in general education.

IV. THE UNIVERSITY OF FLORIDA—THE GENERAL COLLEGE, 1935^{*}

1. Purposes

The third major public institution to launch a General College was the University of Florida. This General College, administering all work for freshmen and sophomores, opened in 1935-1936. For several years, enrollment had been steadily climbing. On a limited budget, it was becoming more and more difficult to operate the old program. President Tigert and his board felt that the traditional program of higher education designed years ago was no longer feasible or desirable. Many faculty members also felt that expansion of the program by fragmenting fields, or by going 'deeper' into minutiae, or by just giving 'more of the same' was no adequate solution. Two-thirds of beginning students dropped out (voluntarily or involuntarily) and, having received only 'specialized bits' and meaningless foundations, were dissatisfied with what they had from their University experience. This general dissatisfaction was reflected in the state. Hence, the president appointed a faculty committee to set up a plan of general education for the entire lower division of the University.

The General College, a two-year administrative unit, was accordingly developed. It was clear that by bringing all lower-division faculty into teaching in general education, the instructional staff as a whole would profit by the experience and their coöperative and individual growth would result. It was also clear that, if general education was good for many, it might be good for all and that, furthermore, if the General College were to include all sophomore and freshman students, it would thus avoid the intercollege jealousies, suspicion, and misunderstanding that arise on any university campus when a new unit is established.

Those responsible for building the new college assumed that all students should become acquainted with certain broad areas of human knowledge. They held to this opinion in the face of the belief, often unfounded, on the part of freshman and sophomores that they know what they want, what will do them good, and that they ought, therefore, to be permitted to choose their subjects. They held to it, too, in the face of the belief that the road to special training is so long and arduous that potential specialists cannot 'afford' general education.

^{*} Adapted from a manuscript by Winston W. Little, Dean of the General College, University of Florida.

2. The Program

a. *Comprehensive Courses.* The general education program was designed to be reasonably flexible. A student, for example, who shows by required placement tests that he is already somewhat familiar with principles and procedures in a given field is excused from the basic comprehensive course in that field, and thus begins at once some of his special work. Since such preparation is rare, however, in actual practice nearly all freshmen take two comprehensive courses, *Man and the Social World* and *Reading, Speaking, and Writing*. Sophomores take two, *The Humanities* and *Man and the Biological World*. The remainder of the student's work in both years is made up of electives. These are controlled to a considerable extent by the upper-division colleges, and professional schools have listed prerequisites that are never over 14 semester hours in the two General College years.

No attempt is made in these broad courses to 'cover' a field or to survey it. Instead, material is selected on several criteria. Most important of these is that material used in the General College courses must contribute a maximum—as determined by actual student use—to understanding the field of study *as it is related to men's thinking, feeling, and action*. Consequently most illustrative material used is close enough to the student to be meaningful and significant. The second criterion is that, while in the main the contemporary approach is used, vital contributing material that comes from ancient times should be included, and that in first-rate general-education teaching it makes little difference whether the illustration be old or new. The question is, does the stuff used in the lecture and classroom immediately become a part of the student's thinking and thus contribute a maximum to his general education? The third criterion is that, since complete effectiveness of any course, general or special, is not easily reached, these courses must be revised continually.

Comprehensive courses meet four times per week throughout the year. A student is limited to four courses each year in order that he may concentrate his interests on the general fields of knowledge in a given period instead of scattering his forces over the general-education offerings. The classes meet once or twice per week for general lectures; at the remaining two or three meetings, these large groups are assembled for discussion in sections of 30 or 35 students each. In addition, there is a demonstration period in the sciences and a writing laboratory in *Reading, Speaking, and Writing*.

Administratively the General College organizes and offers all the

work of the freshman and sophomore years in the University of Florida. All beginning students, therefore, register in this college. The average student is able to complete the General College in two years; a few superior students, in a shorter time; others find it necessary for a variety of reasons, such as self-support, illness, or inadequate preparation, to remain for a longer period. For all, a program of general education supplies that broad basic general training needed by all students. On this meaningful foundation the student may—if he has special bents and competence—erect a structure of special training gained in the colleges and professional schools of the upper division, or, if not, he may leave the University with something definite and helpful as he begins his adult activities. A further purpose of the General College, therefore, is not only to offer an opportunity for general education but also to provide guidance needed by all students. Thus, choice of professional work is postponed until the student himself and the staff of the College are better acquainted with his general and special capacities and disposition to undertake work profitable to himself and society. For the future specialist it is our function to broaden the base of education for students preparing for advanced study in colleges and professional schools of the upper division, thereby avoiding the handicap of early narrow specialization; for the non-specialist, to satisfy his needs and those of students who have only a limited time to give to college training, and who, consequently, should concern themselves with general surveys and major understandings, instead of with introductions to special subject-matter fields that they will never enter.

We purpose also to provide for such adjustment as is required in higher general education incident to changing conditions of modern life; in other words, to take sharp cognizance of change and hence not be caught, as traditional education too often has been, in the dull treadmill of outworn patterns of teaching and learning. The subject matter of the various courses and the methods of presentation are being constantly varied as external changes take place. We find that this, besides being common sense, also awakens the student's interest, stimulates his intellectual curiosity, encourages independent study, and cultivates attitudes necessary for enlightened citizenship.

b. Guidance. Every part of the General College program is designed to guide students. We felt that under the traditional system too much of the freshman and sophomore years had little meaning and significance to the majority of students and staff. Material studied was preparatory and foundational, and whatever of it stuck became meaningful

only when pursued in additional courses in junior and senior years or perhaps only later in vocational and professional practice. Therefore material for the comprehensive courses is selected and tested with *guidance* as a primary function. While, of necessity, we must look forward to distant goals, the General College is trying to present materials directly related to life experiences, materials that will immediately become a part of the student's thinking and guide him in making correct 'next steps.' Thus the whole program—placement tests, progress reports, vocational aptitude tests, selected material in comprehensive courses, student conferences, special provisions for superior students, adjustment for individual differences, election privileges, and comprehensive examinations—are all parts of a plan designed to *guide* students.

At Florida, guidance is not attempted at one office by a small staff. The whole drive of the General College program is one of directing student thinking. While necessary correlation and unification are attempted at the General College Office, throughout the General College period students consult upper-division deans and department heads to discuss future work. During the last month of each school year these informal conferences are concluded by a scheduled formal conference at which each student fills out a preregistration card in one of the professional schools for the coming year.

c. *Admission.* The University of Florida does not require any specific high-school units for admission to its General College. It demands, however, that students have certain minimal skills and attainments in four major fields of high-school study: English, mathematics, science, and social science. Such attainments and skills are not guaranteed merely by acquisition of high-school credits; they may be had by experience outside school. Thus freedom is given to Florida high schools to organize a program that offers the greatest good to the greatest number. But the individual student entering the University must demonstrate basic minimal training. Hence, we consider graduation from the high school,⁴ consistency of high-school record, achievement level, per-

⁴Graduation from the high school is required, although no specific high-school units are required. The Board of University Examiners may in rare cases, when the principal of the high school that the student has attended recommends such action, permit an exceptional student, before graduation, to take the Placement Tests; if the student passes these tests satisfactorily, he will be admitted to the General College. Mature students, lacking a formal high-school education, may petition the Board of University Examiners for permission to take the Placement Tests and the College Aptitude Test. Upon satisfactorily passing these tests, such students are admitted to the General College.

sonal qualities, the recommendation of the high-school principal, and standing on placement tests, in controlling admissions.

d. *Program of Studies.* Mention has already been made of the comprehensive courses. Their organization into a General College program may now be described. All students who enter the University of Florida General College pursue a program of studies worked out on the following basis:

<i>First Year</i>	<i>Second Year</i>
<i>Man and the Social World</i>	<i>The Humanities</i>
<i>Man and the Physical World</i>	<i>Man and the Biological World</i>
<i>Reading, Speaking, and Writing</i>	(Elective)
<i>Man and His Thinking</i> (one semester)	(Elective)
<i>General Mathematics</i> (one semester)	(Elective)
<i>Military Science or Physical Education</i>	<i>Military Science or Physical Education</i>

Each student, then (with some exceptions), must take four comprehensive courses the first, and two the second year. For the remainder of his work, he elects additional comprehensive courses or courses required by the colleges and professional schools of the upper division.

While at first glance such a program seems inflexible, the planners of the program of the General College were not unaware of the necessity for providing for individual differences and have hence introduced some variations making possible essential adaptation. For example, the course *Man and the Physical World* is elective for superior students who enter immediately upon special training in two college science fields, such as physics and chemistry or botany and zoölogy. Others may postpone this course until the sophomore year and substitute an elective. Students who demonstrate superior performance in botany or biology at the time of the December progress reports may elect supplementary laboratory work in either field. Other flexibilities to suit individual needs are made in practice. For example, there is a variety of elective courses. These are of two types: (a) those especially designed for integration with the required general courses, such as *Foundation of Bible Study*, *Introduction to Philosophy*, *Reading for Leisure*, *Literary Masters* (and other special reading courses in English and foreign languages), *Descriptive Astronomy*, *Economic Foundations of Modern Life*, *Political Foundations*, and *Sociological Foundations*, *Introduction to Education*, *Public Opinion*; and (b) those offered in the General College by special departments and related to special training, such as *Elementary Statistics* and *Surveying*.

e. Comprehensive Examinations. The student must successfully pass comprehensive course examinations—eight or more six-hour tests—to complete the work of the General College. These, administered by the Board of University Examiners, are given in January, May, and August of each year. General College students not enrolled in a course at the time the examination is given, but who wish to take any comprehensive examination, must apply for permission in writing to the Board of University Examiners at least a month before the set date and must prove that this privilege is not to be used to avoid payment of usual University fees. A student must be familiar with the work of the various courses and be able to think in the several fields in a comprehensive way in order to pass these examinations. If he fails a comprehensive course examination, he may qualify to repeat it by repeating the course or by further study. Evidence of additional preparation must be submitted to the Board of University Examiners together with an application to repeat.

The General College has dispensed with clock-hours, class grades, and semester-hours of credit as prerequisites to the completion of its curriculum. Instead, progress reports are made by instructors from tests, quizzes, observations, and conferences during each semester. The student understands that these profiles are only diagnostic and informative and are in no way combined with his rating in the comprehensive examination to determine his final standing. They serve to acquaint student, parents, and the Dean of the General College with the student's development. These profiles include a percentage chart, the instructor's rating, and the student's estimate of his own progress.

f. Attendance. The General College expects students to attend classes but does not slavishly check attendance or automatically drop students from classes for non-attendance. If a student accumulates absences or fails to do class work so that further enrollment appears to be of little value to him and detrimental to the class, he is warned. With further absence he is dropped. If he be dropped from more than one course, the Committee on Student Progress may rule that he be dropped from the University. If, however, he is doing good work, attendance is left to his judgment, and he is neither warned nor dropped as long as his record continues to be satisfactory.

g. Failure in Studies. The Committee on Student Progress considers the record of each student in the General College at the end of each session and reports to the Administrative Board of the General College those whose further attendance at the University appears to be of

doubtful value to them. These students are heard by the Committee before final action is taken. Failure to attend classes, to take progress tests, or to take the comprehensive examination at the end of a course may be interpreted as evidence of unsatisfactory progress. If further enrollment at the University appears to be of little value to a student, the Committee may advise the parent to withdraw him.

h. Graduation. When a student has completed his program in the General College, has passed his comprehensive examinations, and has met the other requirements of the General College curriculum, he will be granted the Associate in Arts Certificate. Students who pass three-fourths of the comprehensive examinations with the standing 'excellent' will receive the certificate of Associate in Arts, with High Honors.

3. Evaluation

The general-education program at the University of Florida has not been in operation long enough to secure a valid appraisal of its work. Everyone realizes that the petty academic measures that may be secured now are completely overshadowed by the success or lack of success of its students in after life. Other factors also enter in such a way that evaluation is not yet possible. However, the increasing enthusiasm and diligence that mark the work of the faculty, their growth towards better work and better teaching because they are concerned with a whole program, the respect and general satisfaction found among the students, the support and approval that is given the plan throughout the state—all indicate that the change has been a very desirable step forward.

V. THE UNIVERSITY OF CHICAGO—THE COLLEGE⁵

1. Background of the College

The University of Chicago from its founding has made a marked distinction between the work of the first two years and of the last two years of its undergraduate program. Initially the first two years were designated "The Academic College" and above that level was "The University College." Later these two units became "Lower Division" and "Upper Division," which in April, 1896, were changed to "The Junior College" and "The Senior College," respectively. Finally, in 1931, the Junior College was designated "The College" and above this level was the work of the four "Divisions"—The Biological Sciences,

⁵ This part of the chapter was written by George A. Works, Dean of Students at the University of Chicago. For a description of the new four-year junior-college program at the University of Chicago, see Chapter VII.

The Humanities, The Physical Sciences, and The Social Sciences—and the several professional schools. The work of The College or its equivalent is the minimal requirement for admission to a Division or to any one of the professional schools.

The philosophy underlying the pronounced separation originally made between the first two and the last two years of college work is set forth in President Harper's Annual Report for 1898-1899. To accentuate the difference between the work of these two units, action had been taken to grant a title or a degree on the completion of the work of the first two years. The title originally used was 'University Associate.' In discussing this innovation President Harper wrote as follows:

From the point of view of the student, the following considerations have had influence in determining this action: (1) the fact, very generally recognized, that no important step is taken at the end of the preparatory course. The work of the Freshman and Sophomore years in most colleges differs very little in content and in method from that of the last year of the academy or high school—except that it is somewhat more advanced; but on the other hand, (2) at the end of the Sophomore year a most important change occurs according to the organization of the larger number of institutions—for it is at this point that the student is given larger liberty of choice, and at the same time higher methods of instruction are employed. For the last two years of college work the university spirit and the university method prevail. A new era in the work of the student has begun. (3) It is evident that many students continue work in the Junior and Senior years of college life whose best interests would be served by withdrawal from college. Many continue to the end, not from choice, but rather from compulsion because of the disgrace which may attend an unfinished course. If it were regarded as respectable to stop at the close of the Sophomore year, many would avail themselves of the opportunity. (4) Many students who might be courageous enough to undertake a two-years' college course are not able, for the lack of funds or for other reasons, to see their way clear to enter upon a four years' course. Many, still further, feel that if a professional course is to be taken, there is not time for a four years' college course. It is for this reason that, in part, our professional schools are made up largely of non-college students. If a student who had in view ultimately the medical, or legal, or pedagogical profession could make provision to finish a course of study at the end of two years, he would be much more likely to undertake such a course than the longer four years' course. (5) On the other hand, many students who are thus led to take the two years' course would be induced at the end of that time to continue to the end of the fourth

year, and in this way many students of the very highest character, at all events, would be enabled to take the entire college course by whom, under the present arrangements, such a course would be regarded as impracticable.⁶

This view, that the first two years of college work are more properly identified with the secondary-school program than with higher education, has had a marked influence from the beginning on the development of the collegiate program at the University of Chicago. The action by which the junior-college period was designated "The College" was a further step in the development of this point of view. It is true that the idea of general education as the dominant purpose of this period of education was introduced, but it must be borne in mind that general education was also regarded as the primary function of the high school. The College of the University of Chicago was designed to continue and supplement a program that entrants had begun several years earlier in their school careers. The next step in the sequence of developments was the combination of the last two years of the work of the University High School with The College, thus making a four-year unit. These facts must be borne in mind in any evaluation of the program of The College at the University of Chicago. Sight should not be lost of the fact that the completion of The College or its equivalent is the minimal requirement for admission to any Division or professional school of The University.

Prior to the organization of The College and the adoption of the new curriculum in 1931, an analysis was made of the programs of the 644 students who did all their undergraduate work at the University of Chicago and had obtained degrees either in 1928-1929 or 1929-1930. These analyses showed that in spite of the 'distribution' requirements that were in effect in the Junior College, many of the programs that had been carried by students were highly specialized. Analyses of the programs of these same students for their entire four-year college period showed that outside their department of specialization those students who took work in other departments typically took one course only. This was their means of attempting to secure the breadth of education they desired. In most departments these single courses, elected by students, were really organized to prepare the student for specialization in the subject rather than to give him the breadth of view he was seeking; they were therefore not well adapted to the end sought by the students.

⁶The University of Chicago, *The President's Report*, July, 1898-July, 1899. (The University of Chicago Press, 1900, pp. xx, xxi)

The curriculum finally adopted was designed to correct both these situations. The first problem was met by the *prescription* of the major portion of the student's college program, and the second was corrected by the use of the *comprehensive* type of course with which the faculty had already had several years of experience through the development of the course: *Nature of the World and Man*.

2. The Nature of the Present Curriculum

This background gives a basis for interpretation of the curriculum in effect in The College at the present time. The common requirements for all students are biological science, social science, humanities, physical science, and English composition. In each of the first four subjects a comprehensive course one year in length has been developed. The work of each course is outlined in a syllabus that is supplemented by three lectures per week and one period devoted to discussion or laboratory demonstrations. The course in English composition is based on materials drawn from the comprehensive courses the students may be taking. Three class meetings per week are held in this subject. In English composition, in the discussion groups, and in the laboratory demonstrations, provision is made for small group instruction, but the lecture groups range from 150 to 350 students.

In addition to the four examinations in the comprehensive courses and the examinations in English composition, each student is required to pass two examinations, each in one-year courses of his own choice. These are called "second-year sequences," although some students take one or even both of them in their first year. The offerings from which the students may choose these sequences vary considerably with the fields of knowledge. In the biological sciences there is only one course. This course consists of a quarter each of botany, human physiology, and zoölogy. In the social sciences a second-year comprehensive course based on the first year of work is offered. In addition, geography, which is included also in the physical sciences, may be used as a social science. In the physical sciences there are seven second-year sequences; in the humanities, sixteen. The original faculty legislation required that the sequences must be in different fields of knowledge, but this legislation has been so modified as to permit students to elect both of the second-year sequences from the same field. This makes it possible for students to specialize in The College to a greater degree than they could under the original program. Since in the social and biological sciences there is only one course in each field, this modification affects only students who are

looking toward specialization in the humanities or the physical sciences.

Each of the Divisions sets its own requirements for admission, and these stipulations affect the programs of students who are planning to do work at the divisional level after completing The College. In the biological sciences the second-year sequence is required and also a year in chemistry, including one quarter of organic chemistry. The later sequence may be waived under certain circumstances. The Division of Humanities stipulates work in two foreign languages to the extent of two years in each language in the high school or one year in college. In the physical sciences at least one of the second-year sequences must be in the department in which the student plans to specialize after he enters the Division. The Division of Social Sciences makes no requirement beyond College graduation for admission.

3. Student Programs in The College

As has been stated, one of the purposes of the reorganization was to insure a period of general education in The College as contrasted with the specialization that had characterized the programs of many students during their junior-college period under the program formerly in effect. The results of an analysis of the programs taken by students in the junior college that preceded The College and in The College are shown in Table I.

The data of Table I make it evident that, as measured by contact with the several major fields of knowledge, students in The College had an education that was more general, as contrasted with specialized, than was the case of those students who did their work in The Junior College. An analysis was made of the secondary-school programs that had been taken by these students prior to entering the work of The College. It showed that more than 40 percent of the students had taken no work in the biological sciences at the secondary level. As a result, many students met the requirements of the first two years, and even those for the bachelor's degree, without any work in the biological sciences.

It is evident that the curricular requirements of The College insure a breadth to a student's program that was not provided in the old requirement. Furthermore, it insures that certain gaps found in the education at the high-school level will be corrected, in a measure at least, during the early college years. It is true that this does involve an element of prescription in the curriculum. This is justified on the ground that some of the experiences of the human race are valuable enough so that no individual who bears the label of a college should be ignorant

TABLE I.—PERCENTAGE OF WORK DONE IN THE DIFFERENT FIELDS OF KNOWLEDGE BY STUDENTS AT THE UNIVERSITY OF CHICAGO DURING THEIR FIRST TWO YEARS OF COLLEGE WORK*

(Based on the records of 750 students entering in 1927, 1928, 1929, 1931, and 1932. Those in the last two classes took their work after "The College" was organized and the others took theirs under "The Junior College" Organization.)

Field of Major Sequence	Percentage Done in Field of Major Sequence	Percentage Done in the Biol. Sciences	Percentage Done in the Humanities	Percentage Done in the Phys. Sciences	Percentage Done in the Soc. Sciences
Junior College					
Biological Sciences	33.08		27.82	14.29	24.81
Humanities	60.26	5.79		8.39	25.56
Physical Sciences	53.31	12.04	26.41		8.24
Social Sciences	56.37	7.92	25.04	10.67	
The College					
Biological Sciences	31.82		36.36	20.46	11.36
Humanities	47.39	15.28		13.33	24.00
Physical Sciences	35.57	24.45	25.43		14.55
Social Sciences	40.40	15.39	28.42	15.79	

* Derived from Joseph A. Humphreys, *Changes in Certain Aspects of The College of the University of Chicago Following the Inauguration of the New Plan*. (Doctor's thesis, University of Chicago, 1934)

† Determined by the field in which the student did most of his work during his first two years in college.

of them, and on the further ground that by good instruction the student body entering the University of Chicago can be interested in all the great realms of human achievement.

4. The Recognition of Individual Differences

A further factor that influenced the organization of the College curriculum was the desire to make a more adequate provision for individual differences in the abilities of students. That this had been an important consideration with President Harper is shown by the following statement, which he is credited with having made in 1892 in a discussion of the quarter system:

The whole custom of the annual graduation will, without doubt, gradually disappear. Many of the features of the old commencement have already been given up. It is only a rigid arrangement, which

treats alike all students of whatever capacity, which can secure an annual graduation day. The fact is that each individual should be treated separately, and when his course of study is completed he should be given his diploma. From this point of view students will be graduated from the University every quarter. The student will receive his diploma, not because a certain number of years have passed and a certain day in June has arrived, but because his work is finished. Whether earlier or later than the ordinary period of college education, it does not matter. The college should not be a machine. Every year of a man's life is important. If he can finish his work in a period of time shorter than that usually given by six months or a year, let him have the satisfaction of entering upon his life work so much sooner. If it requires six months or a year longer to finish the required amount of work, let him not be hurried through and the work, though incomplete and unsatisfactory, be called finished.⁷

The quarter system and the acceptance toward college requirements of extra work that had been done in secondary schools were steps toward the recognition of individual differences, but the new program goes even further. During Freshman Week all the newly entering students are given an opportunity to take examinations in the comprehensive courses in the biological sciences, the humanities, the physical sciences, and the social sciences. Early in October the examination in English composition is offered. Students who pass any of these examinations receive recognition for them as if the work had been done under the auspices of The College.

In addition, placement examinations are given in English, the social sciences, the biological sciences, and the physical sciences, and the results are available for guidance of the students in the formulation of their programs. The results of these placement tests make it possible to advise students regarding the necessity of taking certain courses. It has been found practicable for many students to make up their deficiencies in one or more courses by use of the syllabi and the readings indicated in them. In other courses only a portion of the exercises need be attended by the students.

5. The Work of the College Advisers

The effectiveness of this part of the program is largely dependent on the work of the College advisers, of which there are eight or nine

⁷ Thomas W. Goodspeed. *A History of the University of Chicago, 1890-1925*. (University of Chicago Press, 1925) P. 144.

working under the general supervision of the Dean of Students in the College. It is the responsibility of this staff to give students the best counsel they can regarding their programs of work. During Freshman Week the student goes to the adviser to whom he has been assigned. This adviser has in his hands the student's secondary-school record, his percentile rank on a scholastic aptitude record, his percentile rank on each of the placement tests, and such information as he has furnished regarding his interests in further study. With this background material the adviser counsels the student regarding the courses he should take during his first year and the amount of work he should attempt to carry. With regard to both these phases advice is all that is attempted. If a student is paying full fees, he may take as much work as he wishes.

In general, students are not advised to take the four comprehensive courses during their first year. It is too heavy a load for most students. In other instances it is desirable from the viewpoint of the best educational program for students to postpone one or more of the comprehensive courses. A student may have been studying a foreign language during his last year in the high school. If he wishes to do further work in the language at the college level, in general he will be advised to continue it during his first year. The score of a student in the placement test may indicate the need for work in English composition, in which case it would be started ordinarily in the first year. These are only illustrations of a variety of reasons that lead to departures from programs consisting entirely of the comprehensive courses in the student's first-year program. A recent analysis of programs of first-year students in the College showed that on the average they were carrying 2.3 comprehensive courses. It should be understood that the programs for individual students developed during Freshman Week are tentative. The Dean of Students in the College receives from faculty members reports on the work of students at intervals. These reports, together with students' own reactions, are the basis for suggestions from the advisers for modification of programs.

6. Relative Demands of the Old and the New Curricula

Some data are available as to relative demands made on students by the old and the new curricula. Under the old program a student was required to complete 18 majors^a to fulfill the junior-college requirements. As has been indicated, the completion of The College now calls

^a A major was the credit given for a course meeting four or five times a week for a quarter. The normal load for a student was three majors.

for the passing of seven examinations, each of which covers a course one year in length. An analysis made of the rate of progress of students prior to the adoption of the new curriculum showed that at the end of the sixth quarter of residence the average student had met 82.7 percent of the requirements; that is, of the 18 majors. Under the present program, at the end of the same period of time on the average 76.5 percent of the requirements had been met.

Another measure of progress was obtained by taking the percentage of students who had met the requirements of the junior college at the end of six quarters of study. The data showed that 50 percent had met all of their requirements by the end of the period, but under the revised program it was 39 percent that had completed all of The College requirements. The data obtained from the use of a scholastic-aptitude test indicated that in ability the students entering under the new program were above the level of those who entered prior to the reorganization. This difference would seem to indicate quite clearly that the new program was more difficult than the old one, or that students were not applying themselves to as great a degree. There appeared to be no basis for the latter conclusion. The conclusion that the new curriculum makes greater demands of students than did the old appears to be justified on the basis of the evidence. The evidence on this point, however, is not so conclusive as the above data appear to indicate. The study from which the facts quoted were drawn also showed that under the old program at the end of six quarters the students on the average had completed only .10 of a course in excess of the graduation requirements of the junior college, but under the new program the average was 1.46 courses completed in excess of The College requirements. Thus, the difference in difficulty was not so great as would be inferred from the data on completion of the requirements of The Junior College and The College, respectively, although the conclusion that the curriculum of The College was more difficult seems justified.

The data obtained through the study of the rate of progress of students under the two programs show very clearly that a larger degree of adaptation to individual differences in the abilities of students is obtained under the new program than had formerly been obtained. This would be expected to result from such factors as permitting students to take examinations at the beginning of their first year in those courses in which they feel their secondary-school work has given them adequate preparation, the large use of placement tests, and the freedom allowed

students in determining the amount of work they will carry. It is interesting to note that on the whole the students who carry heavy loads are also the ones who have good records.

7. The System of Examinations

The requirements for completion of the Junior College were met by the accumulation of course credits with a qualitative requirement measured by grade-points. One of the reasons that led to the adoption of the new program was the desire to secure more effective means of measuring the educational development of the students. This was done by substituting for the requirement of 18 majors the requirement that the seven examinations that have been described must be met. This placed a heavy stake on the examinations, and provision was made for the development of a more elaborate examination program than had been in use. A Board of Examinations was established. This Board consists of faculty members and its function is legislative; *i.e.*, the determination of the general policies for the evaluation of the work of students in The College. Under the general supervision of the Board is a staff skilled in the formulation of tests. This technical staff, in coöperation with members of the teaching staff, prepares the examinations that are to be given. It is the policy to secure the approval of the teaching staff before any examination is given. After an examination has been prepared and given, the technical staff is responsible for the scoring of the papers. The level of acceptable achievement is determined by the teaching and examining staffs in coöperation.

The examinations are given in English and the four general courses at least twice each year and at such other times as may be justified by the number of applicants. Each examination is scored without the identity of the writer being revealed to those who are doing the scoring. This examination procedure removes from the individual instructor the responsibility for the evaluation of his own instructional work. Instead, students and teachers are allied in their efforts to realize the objectives of the courses that constitute The College curriculum.

In addition to the examinations given under the general supervision of the Board of Examinations, instructors give such tests as they may wish. It is optional with the student whether or not he takes these tests. They do give a student a means of securing the instructor's estimate of his work and are a guide to the student in his work. The majority of students take them, but they are not taken into consideration in deter-

mining grades in the examinations taken under the auspices of the Board. If a student does not wish to take the Board Examinations, he may, through the course examinations, secure credit that can be used for transfer to other institutions.

8. General Effect of The College

The curriculum of The College, in contrast with the program of the Junior College that preceded it, has resulted in changes in the following respects, at least:

1. As measured by contacts with the major fields of human knowledge, The College curriculum makes more adequate provision for breadth of education on the part of students than was true of its predecessor, the Junior-College curriculum.

2. The use of placement tests and counseling procedures and the freedom given students to take examinations in the comprehensive courses and in English at the beginning of the freshman year make for closer coördination of the work of the high school and The College of the University of Chicago. It recognizes that the College program is a continuation of secondary education that students have already begun in the high school.

3. A large measure of adaptation to individual differences is obtained through freedom given students in the amount of work they are permitted to carry and through the extensive use of placement tests.

All these purposes are clearly foreshadowed in the organization and curriculum of the University from its earliest days. The developments of recent years are efforts made for the purpose of making practicable a fuller realization of these purposes.

VI. OTHER GENERAL COLLEGES

Other institutions, public, private, and professional, are experimenting with the development of general colleges. Some of these are considered elsewhere. Significant, however, are the experiments going on at Washington Square College of New York University, in which one hundred picked students are annually privileged to undertake general education. Ohio State University has had for three years an active committee preparing the ground plans for a general college that has now been authorized as a program within the Arts College. Ohio University, the State University of Iowa, and Iowa State College of Agriculture have similar committees. The University of Indiana has for

some years been successfully operating a limited general-education program, as has Montana State College of Agriculture. The University of Oregon and Oregon Agricultural College have likewise been actively planning general colleges.

First of the municipal universities to open a general college was The University of Houston in the fall of 1934, although The University of Louisville was developing at the same period a series of general-education courses within its Arts College. Houston General College is a branch of the University under the Board of Education acting as Trustees. It is wholly self-supporting from student tuition and fees. Its curriculum is designed to fit students to meet the demands of present-day, complex, personal and group conditions. The General College admits *all* students, regardless of capacity, interest, or attitude, who wish to continue their general education. It follows the four subject-matter areas of social, biological, and physical sciences, and the cultural arts. To general courses in these fields have been added supplementary laboratory courses in English, art, writing, music, dramatics, and speech and skills courses in foreign language, mathematics, engineering drawing, physics, and chemistry. Evaluation is being made on the basis of standard tests, which thus far have indicated greater gains by students in the General College than by those in the Evening College devoted to traditional courses. The General College has abandoned fixed marks and substituted progress reports. New buildings are being constructed to house the College.

CHAPTER IX

GENERAL EDUCATION IN THE LIBERAL ARTS COLLEGES

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I. INTRODUCTION

The liberal arts colleges comprise a large and important group of institutions of higher education in the United States. Without any attempt at an exact definition, the liberal arts college may be described as an institution offering four years of non-professional education beyond graduation from the high school. The four-year liberal arts college may be organized as a constituent part of a university, or it may exist as an independent unit, autonomous in its organization and control, and located apart from any university.

General education seems peculiarly the function of the liberal arts college; most institutions of this type clearly recognize the function and organize their curricula around the major purposes of giving a general education. The curricular pattern that a generation ago became more or less a stereotype in such institutions provides for three principal fields of study or distributions of courses for each student before the Bachelor's degree is awarded: (1) a major subject, or field of concentration, with associated minor or minors and both the major and the minors chosen from a departmental grouping of subject matter; (2) a distribution of courses such that the student shall have made a specified minimal amount of contact with each of the major fields of human knowledge—in terms of broad groupings of subject-matter departments; and (3) free electives to an amount determined by subtracting the sum of the requirements under (1) and (2) from the total of 120 semester-hours required for graduation.

A number of leaders in liberal arts colleges, however, have become convinced that this curriculum pattern is not sufficient to guarantee to each student a satisfactory attainment in general education, and numerous attempts have been reported looking toward the revising or sup-

plementing of this traditional plan. It is the purpose of this chapter to report an investigation of a number of these innovations, to call attention to the distinctive procedures employed, and to describe the evaluations that have been made of the results.

II. SELECTION OF INSTITUTIONS

A first step in this inquiry was to list the institutions attempting to carry forward a program entailing some distinctive features in general education. To this end a canvass was made of the articles in educational journals and books published since January 1, 1930. The names of all institutions referred to in these sources as having some distinctive program of general education were included in the basic list for the investigation, regardless of the apparent significance of the innovations. The list found in the literature was supplemented by the names of a few colleges known personally by the writer to have undertaken a program of the type under consideration and by the names of a few additional institutions suggested by the chairman of the Yearbook Committee. Institutions whose programs are treated in other chapters of the Yearbook were deliberately omitted from the list.

The final list of colleges contained fifty-three institutions. A letter was addressed in June, 1938, to the president or dean of each of these colleges, explaining the nature of the investigation and requesting co-operation in furnishing information concerning the program of the institution.

Two colleges reported that their programs of general education were too recently inaugurated to justify data. Forty-two of the remaining fifty-one institutions agreed to furnish a statement concerning their programs; the thirty-five here listed¹ supplied statements in time to be utilized in preparing this report:

University of Akron	University of Cincinnati
Alabama College	Colgate University
Birmingham-Southern College	Colorado College
Brown University	Columbia College
Bucknell University	Drew University
University of Buffalo	Fenn College

¹ This should not be considered an exhaustive list of all institutions carrying on some type of experimentation in general education. It omits those institutions that have not given publicity to their innovations since 1930 in the usual sources, and it omits also those that were unable to furnish statements regarding their programs.

Goucher College	Muskingum College
Grinnell College	Ohio State University
Hamline College	Reed College
Harvard University	University of Rochester
Hendrix College	Simmons College
Howard College	Southwestern College
University of Iowa	Swarthmore College
Judson College	Union College
Knox College	Wayne University
Lawrence College	Wells College
University of Louisville	Yale University
Morningside College	

Nineteen states are represented in this list. There are six institutions from New York, five from Ohio, four from Alabama, and three from Iowa.

III. CHARACTERISTICS OF THE COLLEGES HAVING PROGRAMS OF GENERAL EDUCATION EXHIBITING INNOVATIONS

Thirty-two of the thirty-five colleges on which this study is based provided information on certain features of their institutions. The enrollments of students in these colleges range from 175 or 200 up to several thousand. The enrollment of the median college is 800 students, and less than one-third of the institutions have more than 1000 students enrolled.

The student bodies of the greater part of the liberal arts colleges included in this study are drawn predominantly from a relatively limited area about the institution. Most of the colleges located in large cities draw from 50 to 90 percent of their students from the local community, and in all but four or five of the colleges it was reported that a majority of the students come from the state in which the college is located or from neighboring regions of other states. It is important to note that the programs of general education are set up in almost all these institutions to serve a constituency that is essentially local, rather than national, in scope.

Only twenty-three of the colleges replied to the inquiry concerning the economic and social circumstances of the students. The returns indicate that to a surprising degree these colleges with new programs of general education are serving students who do not come solely from the economically favored classes. Several of the colleges indicate that a

large percentage of their students are earning part or all of their expenses while attending college. One institution reports that the average annual family income for its students is \$2,400. These programs have been set up in colleges in which the students "come from families in which the necessity of earning a living constitutes a very real problem."

Most of the thirty-five colleges are under private control, of which slightly more than half are church-related colleges. Three of the colleges are state institutions; four are municipally supported and controlled. The number of municipal institutions in which new programs of general education are maintained is surprising; there are only about a dozen municipal universities in the country, and it appears that a third of them have developed some distinctive plan of general education. The preponderance of privately controlled institutions in the group being studied is to be expected, for the great majority of the liberal arts colleges of the country are privately controlled. It is significant to note, however, that no college maintained by the Catholic Church or its religious orders appears in the list or in the original group of fifty-three institutions to which the first inquiry was addressed. Apparently, if the Catholic institutions are doing anything by way of experimentation in programs of general education, the accounts of their activities have not been given publicity in the journals or other sources in which one would expect to find such items.

The number of faculty members in these institutions exhibits a range comparable to that of the student enrollments. The faculty members are reported to have had their training in various colleges and universities; most of the professors hold doctorates from the leading universities of this country. In so far as such characteristics as service loads, amount of preparation, and sources of training are concerned, the faculties of these colleges seem to represent a condition no different from that which would be found in most American institutions of higher education.

Special inquiry was made regarding the stated aims and objectives of these colleges. For the most part it appears that no great amount of attention has been given in them to the formulation of statements of objectives. Most of the statements submitted were of the vague, general sort commonly found in the catalogs of American colleges and universities. Various agencies were reported as having been responsible for the initial formulation of the aims. In some cases the purposes stated in the charter of the college were reported; in other cases the statement

of aims had been formulated by the president; in a few outstanding cases there had been active work by the faculty, out of which a definite formulation of institutional aims had developed. In general, then, the aims and objectives of this group of colleges do not differ significantly from the aims and objectives of other institutions of their type in this country.

A particularly well-formulated statement of aims submitted by the University of Akron contains this statement pertaining to services for students:

To give students a survey of the chief fields of knowledge and thus acquaint them with the world of nature and human life; to develop their ability to make sound judgments and to profit from experience; to arouse their intellectual curiosity and stimulate their scholarly growth; to aid them to develop their physical well-being; to help them to appreciate beauty in all its forms and thus to furnish them with resources for enjoying their leisure hours.

To develop and strengthen in students a sense of social responsibility so that they have a proper regard for the rights of others; to prepare them for a sane and loyal family life and an active and intelligent citizenship.

To prepare students for greater social and individual effectiveness in public service, commerce and industry, and the professions; for the professions of teaching and engineering; for entering the professional schools of law, medicine, and dentistry, and for advanced study in other fields; for careers in art, music, home economics, and secretarial science.

In the attainment of these objectives, the University of Akron purposes to utilize its available resources to the utmost. Students who are admitted will be expected to have a satisfactory degree of intellectual maturity, and adequate scholastic preparation along with the necessary aptitudes and interests. It is also expected that their educational objectives will harmonize with those of the University.

IV. DEFINITIONS OF GENERAL EDUCATION

It will be recalled that the colleges included in this study were originally selected because reference has been found in the literature or through personal observation of the writer and others indicating that these institutions are introducing or maintaining programs of general education somewhat different from the traditional type of curricular organization in liberal arts colleges. Only a superficial analysis of the references in the literature, however, was required to indicate the prob-

ability of a considerable difference of opinion regarding the meaning of the term 'general education' as it applies to the program of a liberal arts college. In order to clarify this point, each respondent was asked to indicate the definition of general education on which the program of his institution is formulated. It was suggested that this definition be set up in two categories: (1) negatively, to indicate what educational activities are not included in general education; (2) positively, to indicate the objectives, content, methods, and so forth, peculiar to general education. Further, it was specifically asked whether general education is considered synonymous with liberal or cultural education.

Only twenty-two of the thirty-five colleges supplied a definition of general education. The replies indicated a considerable variation of opinion with regard to the meaning of the term. The following outline lists the various features of the definitions as mentioned in the replies:

I. Negative Features:

1. It excludes all definitely technical, vocational, and professional preparation.
2. It excludes purely technical training, but does include preparation for the professions.
3. It does not exclude vocational preparation.
4. It excludes highly specialized education or concentration in a narrow field of knowledge.
5. It excludes work merely preliminary to advanced study in a given field of knowledge.
6. It excludes fragmentary knowledge and skills, stressing instead the interrelations of knowledge.
7. It excludes the study of subjects for their disciplinary value.
8. It does not consist of survey courses.
9. It is not defined in terms of time.

II. Positive Features:

1. Objectives:

- (a) The objective is to fit the student to understand himself and the world in which he lives.
- (b) The objective is to equip the student for later life.
- (c) The objective is to assist the student to adapt himself to contemporary conditions.
- (d) The objective is to prepare the student for living as a free citizen in a democracy.
- (e) The objective is to promote the finest development and expression of the student's abilities.

- (f) The objective is to help the student synthesize information and see the relation of facts in one field to those in another.
- (g) The objective is the discipline of the intellectual and emotional powers of the student.
- (h) The objective, from the standpoint of the student, is the pursuit of learning for its inherent or intrinsic values.

2. Content:

- (a) The content must cover all the principal branches of knowledge.
- (b) The content includes the knowledge the educated person is expected to possess.
- (c) The content consists of subject matter of wide application and great intellectual appeal.
- (d) All education is to some extent general education.
- (e) The content includes the particular material within a given field that will have usefulness and an applicability for one who is a layman, not a professional, in that field.
- (f) The content depends on the individual—what is general education for one student may not be for another.
- (g) General education concerns itself with the whole individual
- (h) General education will always be superficial.
- (i) General education does not consist merely of elementary concepts.

3. Procedures:

- (a) The spirit in which the work is taught determines the extent to which it provides general education.
- (b) Individualization of the work is an important feature of general education.
- (c) General education involves less reliance on the lecture method and more on informal methods of instruction.
- (d) General education involves the association of heterogeneous groups of students in a wide variety of activities for purposes of extending the range of their experiences.
- (e) General education is philosophical and integrative in character.
- (f) General education is non-technical.

III. Relation of General Education to Liberal or Cultural Education:

- 1. The terms are synonymous.
- 2. If cultural and liberal education are defined narrowly, they are not synonymous with general education; if defined broadly, they are synonymous.
- 3. The distinction between the terms is not clear, but they are probably not synonymous.
- 4. The terms are synonymous in process and objective, but different in method.

5. Liberal or cultural subjects contribute more to general education than vocational or professional subjects, but the latter make some contribution to general education.

Obviously, a considerable amount of subjectivity enters into the analysis and classification of the items as set up in this tabulation. The outline indicates clearly, however, that there are marked differences of opinion—and perhaps some obscurity—regarding the meaning of the term ‘general education.’ A great many of the institutions seem to identify it closely with the term ‘liberal education’ or ‘cultural education.’

From a negative point of view most of the respondents contrast general education with professional and technical or vocational education. Typical of this point of view are the four following statements:

We think of general education as excluding specific preparation for a vocation, particularly when this preparation is purely technical.

Our conception of general education excludes specific courses as courses, especially courses teaching merely how to do this or that. It excludes anything narrowly vocational or technical. Premedical students, for instance, are not encouraged to take any more work in science than is prescribed by the minimum requirements of their future school. Prelaw students have the same curriculum as the Arts.

Negatively, it [general education] excludes such training as prepares one directly for commercial or professional activities.

Defined negatively, general education excludes instruction in fields in which the achievement of technical or professional skills is the chief objective. It, therefore, excludes several fields of subject matter as well as instruction in strictly utilitarian manual activities.

One respondent indicates that general education excludes also courses taken as preliminary to advanced study in any field:

It [general education] excludes professional or preprofessional training, specialized work of any character, or work merely preliminary to advanced study in a given field. It excludes all work, the chief purpose of which is the acquiring of skills.

One of the respondents, however, disagrees vigorously with the point of view that general education is something entirely different from vocational education:

With the commonly accepted conception of general, liberal, or cultural education which excludes the vocational, we do not agree. We believe that there is no more reason to set vocational education apart from general education than to say that health education or civic education has no part in general education.

Another puts this point of view in somewhat less vigorous terms:

In defining or attempting to define general education, our faculty would rule out no subject except that too large a percentage of the student's time and energy should not be concentrated upon a narrow field of knowledge. We believe that all education is to some extent general education, but that courses commonly called liberal or cultural are more so than are those considered as vocational or professional.

A number describe general education in terms of the objectives of equipping the student to understand and adapt himself to the contemporary world. Typical of this point of view are the three following statements:

General education includes activities which give the individual understanding and experience that enable him to appreciate his place in the universe and to participate effectively in both the small and the large group relationships of modern life.

We are attempting to place greater emphasis on aiding the individual to develop attitudes which may assist in making adaptations to contemporary conditions rather than making the point of departure a definite body of subject matter in a specific field.

It [general education] offers the basic structure upon which the individual erects a durable and satisfactory life career.

Some of the responses that stress this feature of the definition of general education apparently see no inconsistency in ruling out vocational or technical preparation while assisting the student to adapt himself to the contemporary world.

Another objective of general education stressed in a considerable number of responses refers to the development of the student's abilities without any ulterior purpose. One respondent quotes Dean Johnston's definition: "The development of the intellectual powers and personal traits that the individual possesses."

Other statements of this type are:

It [general education] is intended to include "a harmonious expansion of all powers which go to make up the beauty and work of human nature." It should help him understand his own physical, mental and moral nature and to adjust it to his environment in such a way as to promote the finest development and expression of his abilities.

Positively defined, general education is that which has the development and discipline of the intellectual and emotional powers as its chief goal.

An entirely different objective is one that sets up as the aim of general education the pursuit of learning for its own sake; for example:

Positively, general education may be recognized by the purpose in view. It consists of whatever learning experiences are pursued for their intrinsic cultural values. These intrinsic values are usually instrumental also to the development of further ends, such as growth in personality, preparation for vocation, citizenship, parenthood, social leadership, and enjoyment of leisure time. No general values are purely intrinsic, but carry double reference to both means and ends. There is normally a surplus of worth which overflows to the enrichment of larger areas of experience. General education serves the general interests of life by awakening broader interests and deeper appreciations. It has transfer value and tends to leaven the whole texture of living. The aim of general education is non-commercial, even though it may indirectly produce monetary values. Its utility is vital rather than material, contributing to the progress of life, not the acquisition of economic gain.

In terms of content, the definitions tend to stress breadth of subject matter. Some of the definitions are specific with reference to the fields of knowledge to be included in general education. An example of such a statement is this one:

General education should include as much as possible from five areas of knowledge, and should give to the student (1) the habit of satisfactory self-expression in the mother tongue, both oral and written, (2) the ability to take care of the body in terms of health and efficiency, (3) an understanding of the institutions of modern society, and some idea of how they operate, (4) some knowledge of, and appreciation for, the past achievements of mankind in such fields as art, music, dramatics, philosophy, and government, (5) some knowledge of, and appreciation for, the material achievements of man in dealing with his physical environment.

Other statements, somewhat less specific but to the same general effect, are as follows:

Positively, we should be inclined to agree with K. W. Bigelow's definition as set forth in the *Education Record*, April, 1938, p. 171, which, it would seem, is generally applied to secondary schools by the Progressive Education Association:

"General education concerns itself with the whole individual in all his relationships. Thus its objectives tend to fall into categories corresponding to broadly inclusive areas of significant human experi-

ence. No single list of such categories has yet achieved conventional acceptance, but the following would seem satisfactory to many:

"A. The area of immediate personal-social relationships, as in the family and with friends.

"B. The area of broader social-civic relationships, as in the community and state.

"C. The area of economic experience, as in choice and pursuit of vocation, and in consumption.

"D. The area of personal living, as in personal growth and development, in the maintenance and attainment of physical and mental health, and in the achievement of an acceptable picture of the universe and a satisfying philosophy of life."

By general education we have come to mean a desirable basic equipment of general knowledge involving the major fields of human endeavor and interest, which the educated person should be expected to possess.

A college should help the student gain a clearer understanding of the social and physical world in which he lives, how it has come to be, and what it may become.

We think of general education as wide and comprehensive knowledge—an optimum of acquaintance with events and occurrences which have taken and are taking place. It is, for purposes of differentiation, contrasted with narrowly specialized education.

The content of general education will coincide with the entire curriculum of the college, except specialized job-training skills. It will include all preprofessional courses as general foundation work contributing to the enlargement of one's understanding and appreciation.

A slightly different point of view is presented thus:

Content: That particular material within a given field that will have a usefulness and an applicability for one who is a layman, not a professional, in the field.

Another approach is represented in the statement:

The content of a general education may be widely varied but generally contains a large proportion of such subject matter as is believed to have wide application and great intellectual appeal.

Some respondents point out that general education could not well be defined absolutely in terms of content.

A given course of study may serve both demands. What is general education for one student is vocational education for another. For instance, an advanced course in English literature is vocational in nature to the prospective teacher of literature or to an embryonic

writer; the same course is part of the general education of a prospective business man or scientist.

Two respondents express directly opposite opinions as to the superficiality of the content of general education. One states:

The general education of an individual, in its broadest sense, will always be superficial. Unfortunately, superficiality has come to have an unfortunate connotation; nevertheless, superficial knowledge about many things is extremely valuable and there is no substitute for it.

The other states:

It [general education] is something common to all persons, to all occupations and professions. It is broad, liberal and cultural, but it need not be elementary. To me, a system of general education that merely furnishes a student with elementary concepts in a wide range of fields is not worthy of the name. For example, such matters as personality, mental hygiene, home and family life, 'worthy citizenship,' interest in other persons, contribution to a community, etc., would touch upon basic needs which are certainly aspects of general education. But they are by no means simple or fragmentary.

A third method of defining general education, used by a few of our respondents, is in terms of the procedures employed therein. Thus, some stress the individualization of the work and the reliance on informal methods of instruction in general education. The following is an example:

General education relies less on the traditional lecture method of imparting specified areas of learning and depends more upon informal methods of instruction whereby the individual student may face situations which show him the need for certain knowledge and give him experience in applying it. Furthermore, the educational significance of many activities formerly considered 'extra-curricular' is now recognized and an effort is made to integrate these activities with other phases of the program.

Another reply that concerns method is this one:

General education is philosophical and integrative in character, tending to make one realize his personal function in the total scheme of creation.

If it be accepted that general education is the opposite of vocational or professional education, it would scarcely seem that any specific procedures could be described as distinctive of general education. In the judgment of the writer, an attempt to define general education in terms of instructional procedures is not particularly useful.

From this analysis of the definitions of general education that we received, we can hardly avoid the conclusion that confusion pervades the minds of many of those who discuss the subject. The respondents in these colleges that have received publicity regarding their programs of general education seem to have no commonly understood, clear-cut, or accordant definition of that term in mind; some of the responses are in open disagreement with others. The statement that would probably come as near as any to representing the majority opinion is the following:

Three assumptions are generally recognized as important in any discussion of 'general education.' First, the ability and interests of the individual determine his progress and limits of progress in general education as well as in any other kind of education. Second, general education overlaps with all other categories of education. The boundaries of general education cannot be defined except for individuals or like groups of individuals. Third, the general education of a person does not end with the finish of formal schooling. All education goes on within the limits of the perception and the environment of an individual throughout his or her life. The college concerns itself, therefore, with providing the start and the means of self-locomotion along the way. The college cannot do the whole job. Experience still remains a great teacher even though her ways are slow and wasteful.

The so-called 'cultural' or 'liberal' education is no less easy to define. . . . A cynic might say that a man has had a cultural education if he is unable to do anything practical when he gets out of college. Humanistic professors maintain that a cultural education will enable any man to do a better job, no matter what the nature of either his work or culture. Neither statement is entirely sound, nor does a combination of liberal and practical education prove wholly satisfactory.

'Vocational education' is more amenable to definition. It refers to those educational processes which have a direct utility for a future career, whether in skilled occupations or in the professions. It refers to those procedures designed to develop skills, both mental and physical in character. All else is general education.

V. SPECIAL PROCEDURES EMPLOYED IN PROGRAMS OF GENERAL EDUCATION

The discovery of the special procedures that are employed in liberal arts colleges to implement their programs and to accomplish the objectives that accord with their definitions of general education is perhaps the most significant part of this investigation. From twenty-nine colleges replies were received that were sufficiently complete and definite

to be useful in this aspect of our investigation. Analysis of these replies indicates eighteen provisions or procedures for general education, that, when classified in five major groups, permit the following lay-out:

1. Their Classification in Five Major Groups

- I. Provisions in Structural Organization
 1. Vertical cleavage into upper and lower divisions
 2. Divisional organization of departments and subjects
- II. Provisions Regarding Arrangement of Subject-matter Offerings
 1. Survey courses covering all the broad fields of knowledge at the junior-college level
 2. Survey courses running through the four years of the college program
 3. Some courses organized on a functional, rather than on a subject-matter, basis
 4. Independent reading courses
 5. Special lectures, conferences, and discussions by outstanding leaders
 6. Special stimulation of use of the library by students
- III. Special Provisions for the Planning of Student Programs
 1. Opportunity for a field of concentration on a basis broader than a departmental major
 2. Individual planning of the program for each student
 3. Student initiative in planning of his program
 4. Special counselling by faculty members on choice of program by students
- IV. Special Instructional Procedures
 1. Tutorial plan
 2. Seminar plan
 3. Honors courses
- V. Comprehensive Examinations
 1. Admission to upper division based on comprehensive examinations
 2. Admission to senior year based on comprehensive examination
 3. Comprehensive examination required for graduation

Most of these provisions and procedures for general education are by no means novel, and for the most part the particular combinations of them found in the colleges seem to represent little that is new or startling. Such provisions as the cleavage into upper and lower divisions, divisional organization of departments, survey courses, fields of concentration instead of departmental majors, individualization of student programs, educational counselling, tutorial plans, honors courses, and comprehensive examinations—the procedures reported by the largest numbers of institutions—have already been described in other re-

ports.¹ The frequency with which a given provision is reported is perhaps not particularly significant; those reported by a relatively few colleges may be of considerable importance as indication of future development.

2. Their Significance for Adjustment to Social Needs

The significance of these newer practices lies perhaps primarily in the contribution they may be expected to make to a better adjustment between the educational program and the needs of the social order. They may be considered briefly in that respect.

The introduction of the cleavage between the upper and lower divisions, first item in our list, represents a recognition of the change in social and economic conditions that has brought about a delayed entrance into gainful employment for most American youth. The kinship of the work of the lower division of the college with that of the secondary school is generally recognized wherever this cleavage is introduced, and the attempt is made in the college to complete or to round out the students' general education, which is presumably incomplete at the end of the high-school period. This tendency to divide the program into upper and lower divisions has very definite implications for the future of the liberal arts college, for ultimately the work of the lower division seems destined, at least in large part, to fall to the lot of the public secondary school rather than to the institution of the collegiate type. It remains to be seen whether the consummation of this movement will be delayed as long as was the similar movement for the discontinuance of high schools and academies connected with collegiate institutions. The colleges that are following the policy of recognizing the cleavage between upper and lower divisions should be commended for their insight into the implication of changed social and economic conditions, but they also need to be considering what their place and function will be in the future when this movement reaches its natural culmination

¹ *Five College Plans* (with an introduction by J. J. Coss). (New York: Columbia University Press, 1931. 116 pp.)

B. Lamar Johnson. *What About Survey Courses?* (New York: Henry Holt and Co., 1937. 378 pp.)

E. S. Jones. *Comprehensive Examinations in American Colleges*. (New York: The Macmillan Co., 1933. 436 pp.)

See also the valuable and detailed summary by Frances Valiant Speak, "One hundred twenty-eight outstanding changes and experiments," being Chapter III in "Changes and Experiments in Liberal-Arts Education," *Thirty-First Yearbook, Part II*, of this Society, 1932.—*Editor*.

and the work of the lower division is taken over largely by the local public-school systems.

The second of the newer practices listed, the divisional organization of subject-matter offerings, represents an important recognition of the necessity for stressing relationships between and among fields of knowledge. Personal observation in a number of colleges leads to some skepticism regarding the extent to which that organization is actually accomplishing this aim of bringing the subject-matter fields into closer relations. Too often the organization exists principally on paper, or at most serves a somewhat routine administrative purpose, with no fundamental reorganization in the thinking or teaching of faculty members. In other words, the divisional organization of subject matter is important as a facilitating device for general education, but the device alone does not guarantee that the expected integrations will take place.

Survey courses, the third item in the outline, like the divisional organization of subject matter with which such courses are usually associated, represent an important recognition of the difficulty under modern conditions of providing an education that adequately introduces the students to all the important branches of human knowledge. The necessity for a new organization of subject matter to provide students with an appropriate introduction to the major fields of knowledge arises both from the rapid extension of knowledge that has taken place in recent times and from the extent to which breadth of knowledge is necessary for effective living under modern conditions. Although one respondent reports that, after trying survey courses in his institution, the conviction was reached that they are ineffective for the purposes of general education, a large number of the colleges mention survey courses as an important feature of their programs. These courses are usually confined to the lower division, or the junior-college level, though in one institution some survey courses are carried by the student throughout the entire four years of his program.

One of the most significant developments reported in this investigation is the organization of courses on a functional, rather than a subject-matter, basis. The organization of knowledge into the recognized and traditional fields of subject matter has apparently been a natural outcome of the work of scholars and investigators. Attention has repeatedly been called in recent times to the fact that in the practical situations faced by persons in daily life problems are not often pigeon-holed in these traditional subject-matter fields, such as algebra, American history, economics, or psychology. The attempt to organize the

presentation to the student around 'problem areas,' or functions, instead of in terms of the traditional subject-matter fields is perhaps the most radical step since the original formulation of the seven liberal arts in the days of ancient Rome. It is not a particularly easy step. For example, the tendency of problem areas to be highly individualized raises a question as to whether subject matter can be organized on a functional basis into courses that will have sufficient applicability to all students. The reply would doubtless be made that the applicability will be at least as great as, and probably much greater than, that of knowledge presented under the traditional subject-matter formulation. Experimentation with a functional organization of subject matter offers a promising field of educational endeavor.

Another attempt to adjust the instructional program better to the needs of the student is represented by the plan of independent reading courses. This arrangement, like the survey course, is an attempt to broaden the content covered, but it has the further advantage of individualizing the instructional program for each student. The content of the independent reading courses, however, tends to fall largely into the usual departmentalized grooves, and thus the plan does not go far toward breaking down the formal and traditional organization of subject matter.

Other plans, reported by some of the colleges, such as special lectures and conferences and the stimulation of the use of the library by students, might be considered as variations of the independent reading plan. None of these arrangements, however, seems to have any peculiar relation to general education as such, for the procedures are equally applicable to special or vocational education. In other words, the usefulness of procedures like independent reading courses, lectures and conferences, and the stimulation of increased use of the library, in the improvement of general education depends not so much on the procedures themselves as on the content of the independent reading, on the subjects of the lectures, and on the type of library material that students are stimulated to use.

The third major category of procedures in general education listed in our classification is termed "special provisions for the planning of student programs." Provisions of this type were reported by a considerable number of colleges as important in their programs of general education. The plan of permitting students the opportunity to choose a field of concentration on a somewhat broader basis than the departmental major has been adopted by many of the institutions reporting.

Under this plan the student is not restricted to a major that includes a specified number of courses in a single academic department, but may arrange, with the advice of a faculty counsellor, a field of concentration that includes subjects from two or more different departments. This arrangement seems to be facilitated by the divisional organization of departments; but, to achieve the full purposes of the broader field of concentration, the choices to be made by the students should not be limited to departments associated in a single academic division.

A few colleges report a plan of general education whereby all requirements for the bachelor's degree, other than those relating to the total quantity of work to be covered, have been discontinued and each student's program is planned individually to meet his own needs without reference to any other requirements. This is a step notably in advance of provision for fields of concentration on a basis broader than the departmental major. In every college reporting the elimination of formal requirements for the degree, the planning of the individual program is subject to the approval of a faculty counsellor. One can well suspect that the real significance of this innovation is determined to a considerable extent by the attitudes of the faculty members who serve as counsellors. It is not inconceivable that, without any announced requirements or rules, the counsellors may in practice follow as rigid a plan of prescription as ever obtained before the new plan was introduced.

A small number of colleges feature as part of their plans for general education the initiative of the student in planning his own program. This is a further variation of the arrangement described in the preceding paragraphs. The importance of this feature lies in the educative effect upon the student of throwing upon him the responsibility for analyzing his own capabilities and needs and for proposing an educational program consonant therewith. The proposals of the student are, of course, subject to approval by faculty advisers. Here, too, one cannot avoid some skepticism regarding the extent to which true initiative is actually displayed by the students. One wonders, for example, what happens when the proposal of the student calls for instructional facilities not afforded by the college. It seems obvious that the arrangement will in practice be only as flexible as the attitudes of the faculty members who advise the students regarding their programs.

Special instructional procedures featured by a number of colleges as a part of their plans for general education, such as tutorial instruction,

the seminar plan, and honors courses, do not seem specifically related to general education as such, though such methods may serve to broaden the students' preparation and thus to provide a better general education if directed to that end.

The final item, the comprehensive examination, has been introduced into a large number of colleges. A few of the institutions are using this type of examination for admission to the upper division or to the senior year; a much larger number are setting comprehensive examinations as a requirement for graduation. The comprehensive examination as such has no specific relation to general education, and the improvement of general education by it depends on the content covered in the examination. Since it has long been customary to set examinations of the comprehensive type as a requirement for licensure in professions such as law or medicine or teaching, it may be argued that the colleges are merely borrowing the device for use in general education.

The most encouraging feature to be noted in this assemblage of the procedures used in programs of general education is the obvious sincerity of the colleges in their endeavors to improve their services to students. The variety of devices that are being experimented with testifies to the zeal of the liberal arts colleges in seeking to achieve the objectives of general education. We feel that many of the devices and procedures reported are not, properly speaking, in themselves general education, but only a means of improving or achieving it, and that most of them offer considerable promise in this direction. *The most radical innovation of the entire group, the functional organization of subject-matter courses, is worthy of especially serious attention, for, if it proves successful, it will revolutionize the plan of subject-matter organization that has been fixed for more than two thousand years in Western Civilization.*

VI. EVALUATIONS BY THE INSTITUTIONS OF THEIR OWN PROGRAMS

As a final part of the inquiry the colleges were asked to report any evidence that had been accumulated regarding the effectiveness of their programs of general education. Most of the respondents frankly admit that no serious attempts have been made to accumulate objective evidence regarding the effectiveness of their programs, and some point out the difficulties of making conclusive evaluations. A considerable number of the colleges report that faculty members are well satisfied with the plans, and that such judgments are based on the quality of students attracted to the institution, on the performance of students in upper-

division courses, and on general observation of the intellectual growth exhibited by students under the present plans as compared with that under former plans. In a few cases the colleges report that the students have been invited to give their reactions to the plan; in all of these cases a large majority of the student responses are reported as being favorable to the program of general education.

A few of the colleges submitted some objective evidence regarding the effectiveness of their programs of general education. For the most part this evidence relates to the performance of students on standardized examinations, such as those of the Sophomore Testing Program, or the Psychological Examination of the American Council on Education. The results of such analyses in every reported instance indicate performance above national norms by students in institutions having programs of general education.

In no instance do these reported studies distinguish between the effects of the program of general education as such and the effects that might be attributable to selectivity in student admissions, improved instructional service by the faculty, increased library facilities, or other factors. For example, it may be pointed out that if the students of an experimenting college rank well above national norms on the examinations of the Sophomore Testing Program, this gratifying result may be due not so much to the excellence of the program of general education as to the selective admission of a superior group of students. Even a comparison of the standing of students in a college before and after the introduction of a new program could not be taken as conclusive evidence of an effect due to the new program alone.

So far as the writer could determine, no college has carried on a program of general education under experimentally controlled conditions so that the effect of factors other than the program itself could be isolated in the analysis of the results. To control completely all the factors that might affect the success of an experiment in curricular reorganization in a college or a university is admittedly difficult and probably impossible under present conditions; experimentation with at least a few of the factors under control, however, would seem desirable to an effective determination of the results. For example, it may be surmised that almost any new curriculum or organization of instructional procedures will, at least during its early years, attract students of a superior type, students willing to venture into academic paths that are not well broken. It should be readily possible to isolate the effect of this factor.

Analyses that would differentiate the effects of a new plan of general education itself from the effects of other factors are perhaps not of particular importance for the individual college; it is perhaps enough for the college to know that the performance of students is now better than it was. But to one interested in introducing the same procedure in another college, however, it is important to be able to distinguish the effect of the procedure itself from the effects of other circumstances and to know what these other circumstances are that may condition the success of a curricular reorganization. The evaluations thus far made must be considered inconclusive with respect to the specific effect of the various procedures that have been introduced under the name of 'general education.'

We believe that one unreported effect of these innovations in the colleges has been the stimulation of the faculty members. Thus an improvement in student performance in these colleges may be due only indirectly to the introduction of procedures in general education and more directly to the increased activity on the part of instructors. Anything that tends to alter established academic routines, whether it goes by the name of general education or by any other designation, is very likely to produce increased activity by the members of the instructional staff and thus to result in a better performance by the students.

A number of the colleges report that the improved selection of students and the stimulation of their faculty members is a definite part of their procedures in general education. These matters are not included in the categories presented in the outline because they seem to have no direct connection with a program of general education as such. It is entirely probable, however, that the favorable results reported so uniformly by these colleges from their programs of general education may be attributable in large part to the direct effects of the changes on the faculty, their thinking, their teaching, their interest in the educational problems of the student.

VII. SUMMARY AND CONCLUSIONS

1. A preliminary study of the literature in higher education, supplemented by personal acquaintance with a number of institutional programs, revealed the fact that some fifty-three colleges of liberal arts have been reported in recent years as engaging in programs advertised as efforts in general education. On the basis of an inquiry among the colleges some of these published reports were found to be misleading

because the institutions do not themselves regard their procedures as an attempt to provide general education. It was possible in this study to collect from thirty-five colleges information describing the concepts held regarding general education and the procedures utilized to accomplish its objectives. Twenty-nine of the colleges furnished usable descriptions of their programs of general education.

2. The materials that have been collected and reported in this investigation indicate clearly that 'general education' is a term with widely different meanings.

3. The analysis of the procedures employed to accomplish the aims of general education reveals many provisions and practices that are relatively familiar.

4. The writer of this chapter takes the position that no useful service is rendered by attempting to designate these new programs as plans for 'general education.' The older terms, 'cultural education,' or 'liberal education,' seem sufficient to describe most of what is now being carried on in liberal arts colleges under the name 'general education.' For a few of these newer practices, such as the organization of courses around functional rather than subject-matter lines, it would seem better to find some more meaningful designation than to refer to them by such a vague term as 'general education.' In so far as most of the other provisions and procedures are concerned, it would seem much more useful to designate them by the accepted descriptive terms that indicate their distinctive features—such as divisional organization, survey courses, fields of concentration, and comprehensive examinations—than to attempt to categorize all such practices under a term such as 'general education.'

5. Although the promotion of the term, 'general education,' to designate the stressing of these practices and procedures seems a mistake, the procedures themselves are worthy of further investigation and experimentation. The colleges can well afford to promote any reasonable movement tending to lessen formalization and routinization in the procedures characteristic of higher education.

6. Especially is there need, however, for the accumulation of more conclusive evidence regarding the effectiveness of these procedures with which the colleges are experimenting. At present objective demonstration of their superiority over the traditional organization and methods does not exist, however convinced some proponents of the innovations may be of their merits.

CHAPTER X

GENERAL EDUCATION IN EXPERIMENTAL LIBERAL ARTS COLLEGES

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I. INTRODUCTION

As the idea of general education develops and takes form in various types of institutions, it is important to recognize the distinctive meanings given to it by groups working in various settings. The present chapter undertakes to show how general education is interpreted in one group of liberal arts colleges regarded as experimental.

We may observe at the outset that the experimental colleges do not share in certain of the common usages of the term 'general education.' They do not understand it, as some do, to refer primarily to whatever education may be suitable for the general population of youth of college age, although this view does not commit the experimental colleges to a policy of rigid selection for admission. Nor do they see general education merely as a process covering diverse fields of subject matter—general in the sense of comprehensive—although these colleges do strive to leave no large gaps in the pattern of knowledge with which they wish their students to become familiar.

When we seek to state what these colleges do understand general education to mean, we at once confront the necessity of no longer speaking of the experimental colleges as a group of one mind regarding the matter. To a degree, some of them tend to think of general education in contrast to vocational studies. To a degree, all of them set the term over against specialized educational processes. To some slight degree, these colleges see eye to eye with the 'general colleges' with respect to the opportunity of providing an educational program that anticipates the whole range of personal and social problems faced in common by all citizens and that endeavors to provide a functional preparation for meeting these problems intelligently. A fuller interpretation of the view governing the work of these colleges in general education will be sought in the present chapter. Perhaps we should first note some of the prin-

cial features of the group of colleges upon which the attention of this chapter is focused.

II. NATURE OF AN EXPERIMENTAL COLLEGE

The fact that an educational program can only be understood in relation to conditioning factors of time and place is nowhere more boldly demonstrated than in the so-called 'experimental' colleges. The community setting and the social forces playing upon these institutions contribute to their essential character perhaps more than is usually the case among colleges. In some cases a particular combination of such influences may have been chosen more or less deliberately when the college was founded because it seemed to afford a desirable locale for the type of experience intended to be fostered in the college. The dynamic and changing character of community relations, however, makes them yield many unforeseeable results. The college is changed by its community. Thus, the first essential to an understanding of a college program is to see it as a growing thing rather than as a static, or even stable, entity.

The experimental colleges, rather more than colleges generally, are self-conscious institutions. They not only share in the usual broad purpose to promote enlightenment but they have also formulated a body of fairly explicit principles for their own guidance. They have in considerable measure worked out the implications of their principles for a reasoned total outlook upon life and education. They seek to implement and advance some philosophy. This is not to say that there is a strict singleness of purpose in any one of these colleges, for frequently the groups are divided within themselves on many important points, but in their nature they have a basis of united action upon the experimental enterprise they seek to carry on. Thus, a second essential to the understanding of such a college is to view it in the framework of values it regards as most important.

With these two primary considerations in mind we may inquire further as to the essential characteristics of an experimental college. In one sense of the term every college, like every other social institution, is experimental, at least at the time of its founding. It is a form of human relationships established or developed in the hope and expectation that it will meet some recognized human need. There is no absolute assurance in advance that it will do so. The assumption is that, if it yields the proper results, it will survive; if not, it will necessarily be abandoned. The fact is, however, that numerous practically irrelevant

factors, such as prestige and vested interest, operate to prolong the life of certain institutions that yield no conspicuously successful results. These institutions are not experimental and possibly have not been so—except in the initial period of their lives—and they should therefore not be so designated.

Within the past fifteen years it has virtually become the style for colleges to devise novel plans. Many of these have clearly been nothing more than efforts to modernize the outward appearance of the educational process with a view to increasing public attention. Such innovations are not experiments, although they have sometimes been so described.

The gradual improvement during recent years of scientific methods in the social fields has been paralleled by more widespread effort on the part of colleges to use such methods in testing the efficacy of particular procedures and policies. Numerous restricted and controlled experiments have been undertaken. A college decides, for example, for a limited period to admit abnormally young students to the freshman class in order to discover whether they are able to carry the regular work of the college. Should such an institution be thought of as an experimental college? There is reason to question whether one particular part of the educational process of an institution can be subjected to genuine experimentation without the necessity of its basically affecting other parts of the group process. However that may be, if there are no such basic changes it would hardly seem appropriate to regard the college in question as an experimental institution.

The significant characteristics of a truly experimental college lie in its attitude toward its very existence and toward all of its policies, methods, and procedures. Specifically, such a college would be identified upon the basis of the following criteria:

1. It would have been brought into existence for the purpose of making a definite contribution to the understanding of the nature of good education on the part of society and the educational profession at large; its chief *raison d'être* would be the advancement of society's educational frontier.
2. Its special intended contribution would be determined in relation to questions regarded as crucial at a given stage of educational development. It would be designed to play a strategic rôle.¹
3. Its policies would be forged with a view to securing the most valuable

¹ Coeducation was regarded as an all-embracing and destiny-determining educational experiment in certain colleges somewhat less than a century ago; it is no longer so regarded for the reason that society and education have advanced beyond the point where that question was strategic.

total institutional contribution: a certain quality of educational experience for the students would be sought; the result of this effort upon the development of the institution itself would be considered; and the secondary influences of the life of the institution upon the social culture would be weighed.

4. Its every method and procedure would be designed appropriately to the experimental goal in view; and conversely, its goals would be reshaped in ways necessary to secure the fullest advantage of experience gained in the use of various methods and procedures.²

5. It would be an organic unity, part working with part in a common enterprise; it would seek to make its every activity contribute to progress toward the experimental venture.

6. It would possess a lively sense of responsibility for full evaluation of itself and the results of its activities, together with the integrity to represent itself honestly to the public and to act upon the judgments of value so reached.³

It may perhaps be questioned whether we have any four-year liberal arts colleges in America today that are strictly experimental according to the foregoing criteria. Nevertheless, five institutions have been selected for study in this chapter that are believed to approximate the experimental standards. It is not suggested that these exhaust the list of such institutions. Doubtless there are some others, and possibly many, deserving to be mentioned. For the purpose of studying the general education problem, however, it is believed that this small group will be sufficient to represent their major trends. The five colleges, in the order of the beginnings of their experimental programs, are Sarah Lawrence College, Bronxville, New York; Bennington College, Bennington, Vermont; Black Mountain College, Black Mountain, North Carolina; Bard College, Annandale-on-Hudson, New York; and St. Johns College, Annapolis, Maryland. The account of the work in these five may, however, be advantageously prefaced by an account of another institution.

III. PIONEERING IN COLLEGIATE EXPERIMENTATION AT REED COLLEGE

One of the first and boldest efforts to reconstruct the college program was made at Reed College, Portland, Oregon, an institution which in

² This does not, of course, relieve an institution from the obligation of *sustained* application of its energies to an objective it has deliberately chosen. Failure to reach a goal may at times be as significant as success.

³ If such evaluation should at any time show the need and the possibility of change in its basic character, it would make such change; if the evidence should at any time show that its essential usefulness had come to an end, it would be prepared to disband.

May, 1935, had completed its twenty-fourth year and which at that time inaugurated its fourth president. Recent developments in collegiate experimentation will be illuminated if seen in relation to a brief review of the work of this pioneer institution, established in 1911.

Founded upon a benefaction of Mr. and Mrs. Simeon G. Reed, the College was intended first of all to serve the City of Portland and the Northwest. A metropolitan community growing up amidst the dominant interests of the lumber and fishing industries of the Columbia River Valley has been the environmental setting of the College through the years.

Reflecting the ideas of its first President, Dr. William T. Foster, Reed College became what many have regarded as the first 'progressive education' college. It devoted itself to the correction of what were then widely seen as the chief evils of college education, in which, as Woodrow Wilson expressed it, "The sideshows are swallowing up the circus." Rigid admission requirements were dispensed with, but great emphasis was placed upon securing students of outstanding intellectual abilities and with strong qualities of personal character. The initial enrollment was 46 students; in 1936 there were 427, more than three-fourths of whom lived at home in the city of Portland. Seeking to make high scholarship attractive and respectable, Reed resisted the formation of fraternities and the establishment of intercollegiate athletics. It has continually been the desire of the College to foster democratic relationships among the students, even though at times the institution has been accused of being intellectually 'highbrow.' Students have been expected to assume responsibility for sharing in decisions relative to matters of common concern in the college community and they have had an active part in college government. Students have been encouraged to participate generally in athletic sports rather than adopt the rôle of lookers-on.

The evolution of the Reed curriculum reveals trends that have been widespread among American colleges during the past generation. Until 1921 the principle of free student election prevailed. There followed a period of about three years when effort was made to prescribe more fully the pattern of studies. Subsequently and until the present there has been a process of modification of prescription to provide for work in broad fields rather than in specific subjects. Thus at Reed, as elsewhere, the replacement of the elective system has been attended by a struggle to assure a certain degree of unity in the pattern of studies without impairing the individual student's responsibility for choice and for pro-

moting his own education. Just what type of unity should prevail in the curriculum has been, and still is, a matter to be discovered experimentally at Reed.

The curriculum at Reed today shares with those of many other colleges the two-fold purpose of providing both for breadth of intellectual experience and for expertness in chosen fields. In the first two years introductory courses in different fields emphasize a study of society and its culture. While in the last two years the students work in major fields and closely related subjects, the purpose is not merely technical or vocational training but in addition that the student may discover what meaning his intellectual experience as a whole has for him.

After a generation of experimentation with the individualizing of education on a high intellectual plane, Reed is now developing more vital educational contacts with its own community and region. One of the most dramatic illustrations of the latter emphasis is the recent work of a group of students in studying the water and electric-power problem in relation to human needs in the Columbia River Valley. This study provided opportunity for considerable participation of students in the social process of policy-formation and in gaining public acceptance for certain plans that had been drafted.

Reed has lived through all of the major phases in the history of the 'progressive education' movement. It is the only experimental college that has been enabled to reach the maturity of its original plans and purposes. In this respect it faces today problems of reorientation and appraisal that other experimental colleges will face ten, fifteen, or twenty years from now. It therefore offers a challenge to all experimental colleges to discover ways of continually revitalizing their programs after initial enthusiasms shall have been tested in the crucible of action.

IV. GENERAL CHARACTERISTICS OF THE FIVE COLLEGES

It is important to bear in mind that the work of these colleges is here being dealt with in terms of the observations of one individual who has visited them all, but who has not had the good fortune to be a member of any one of the colleges. An absolutely objective representation of the nature of any social institution is clearly impossible. The extreme difficulty of strictly impartial treatment serves to emphasize the fact that criticism, and even initial observations, are understandable only in terms of the values cherished by the critic, who sees the institution in certain important particulars as he alone can see it.

In order to supply necessary background, a brief statement will be made characterizing each institution, its underlying purposes, its local setting, and the general organization of its work, as set forth by the institution in presenting its program to the public. These statements will be followed by a more detailed analysis of general education in the five institutions organized around a number of problem centers and emphasizing similarities and contrasts in the approach to such problems among the five colleges.

1. Sarah Lawrence College

Founded by Mr. William Van Duzer Lawrence upon his gift of land, buildings, and securities, Sarah Lawrence College was provisionally chartered in 1926 and opened in the fall of 1928. The location at Bronxville, a suburb of New York City, was chosen with a view to affording intellectual and social resources for Westchester County, and likewise to affording opportunities to study life in smaller cities, like Yonkers and Mount Vernon.

In consultation with President H. N. McCracken of Vassar College, whose institution early sponsored the project in various ways, Mr. Lawrence sought to build a two-year program of education distinctively suited to the needs of women. The stimulation of enduring intellectual interests, the effective use of leisure, the provision of group experience for both leaders and followers, and the provision of special opportunities for the gifted were prominent among his aims. The first catalog states the purpose of the College to be to organize its curriculum "along the lines of progressive education" with a view to contributing a needed new and experimental emphasis in higher education. Special recognition of the needs and interests of students through a reconsideration of conventional approaches to knowledge and the avoidance of a paternalistic teacher-and-student relationship have been characteristic goals from the beginning.

Approximately five years after its establishment, Sarah Lawrence sought and received a permanent charter with power to confer the B.A. degree. The enrollment in 1937-1938 was 281, widely distributed geographically, and including approximately 35 who were pursuing degree work beyond the second year.

The policy of the College is to charge the student the full cost of her education and maintenance, which necessitates an inclusive expenditure by her of somewhat more than \$2000 per year, of which \$1710 are College charges. Some scholarships are available, however, to enable the

College to draw a student body from different income groups. Fifty or more day students are admitted who pay only \$700 per year, which is somewhat less than the full cost of the facilities they receive.

Students' programs are flexible and based upon as careful a study as possible of the interests, abilities, and needs of each student. There are seldom two identical programs in any one year. Each student usually works in three fields, each occupying about a third of her time. To facilitate an intelligent planning of the remainder of her college work, each freshman selects exploratory work in one of her three fields of study. Her selection is generally based upon the aims and interests with which she comes to college.

Subsequently these interests are tested by the student through discussion of theory with the instructor, field-trip observations, laboratory investigation, studio work, or library research. In this way whatever interests are genuine are discovered, available materials and techniques are located, and promising directions for further work are revealed. Should a student feel that her interests are already clear, well formulated, and defensible, she works in such an exploratory group to relate her interests more widely to materials from different fields until such a time as it is deemed appropriate for her to receive special training through more intensive work.

The work of a student for a degree may begin in either of two ways. An initial interest in one field may be developed intensively or developed in relation to other fields; or, initially the student may wish to broaden her knowledge and experience, reserving intensive work until such time as she feels the need for it. It is customary, however, for students to develop a dominant interest in some one field and they must give evidence of definite skill in some area before graduation.

The three courses are regarded by the College, not as 'subjects' in the conventional sense, but as correlated areas of work. Every faculty member, while working primarily in his own field, endeavors always to keep in mind the entire college programs of his students, and no rigid scheduling is permitted to interfere with the student's utilizing any resource of the College, whether in the field of social science, natural science, the arts, language, or literature, that may appropriately be drawn upon. Whenever possible, field work is carried on in New York or in one of the smaller cities of the immediate area in close connection with the subjects the student is studying. The College feels a responsibility to assist the student to learn through practical experience, ob-

servation, and conversation as well as through books, scientific experimentation, and studio techniques. Group work in each subject is carried on in a two-hour seminar once a week. Individual work is planned and individual problems are discussed in weekly scheduled conferences with each instructor, who evaluates the student's work in terms both of its quality and its significance in her development. She also has a weekly conference with her faculty adviser, who has general supervision over her program of work and assists her to correlate all the activities of college life.

An educational plan such as that of Sarah Lawrence College, which has just been described in terms frequently used by officers of the College in interpreting their institution, offers virtually the maximum of flexibility and freedom for the student under the personal attention and direction of faculty members.

2. Bennington College

As early as 1923 a movement began to take form for the founding of an experimental college for women along lines subsequently followed by Bennington. After more than seven years of study and conference with citizens and parents and with educational groups from progressive schools and colleges, a charter was secured in 1925. The College was officially opened at Bennington, Vermont, in September, 1932. The resolution of the first conference served to guide the plan for a "four-year course leading to the A.B. degree with standards equal to those of the best American colleges for women."

The town of Bennington is a small rural-industrial community in the southwest corner of Vermont, thirty-seven miles from Albany, New York, seventeen miles from Williamstown, Massachusetts, and within five hours' ride of about one-tenth of the population of the United States in the metropolitan centers of Boston and New York. The College occupies a 140-acre site near the town and is flanked by the Green Mountains and the Taconic Range.

The 1937 enrollment, which was almost entirely resident at the College and therefore not drawn from the immediate locality, was 278, representing widely distributed geographical areas, although made up chiefly of residents of large metropolitan centers of the East. Three-fourths were from private secondary schools. Two-thirds paid full tuition; the other third received scholarship aid. The total expenditure necessary for a year's residence in Bennington averages well over \$2000, of which \$1675 are College charges.

Bennington College recognizes that entering students differ in the degree to which their interests are sustained and correlated with distinct ability. Some should clearly be permitted to work along the lines of their choice; others have pronounced enthusiasms or aversions resulting from inadequate educational background; and still others are intellectually able but without definite purposes or interests in either the intellectual or the esthetic fields. The first two years of the College program are therefore primarily given to exploration through the work of introductory groups, each requiring about one-fourth of the student's working time. However, a student may or may not take four courses in different fields, depending upon the adequacy of previous exploratory experiences.

The entering student chooses at registration a "trial major" field (art, dance, drama, music, literature, social studies, science) in which she wishes to spend one-fourth or more of her time in testing her interest and ability under guidance. In addition to the introductory group work and the trial major work there is time during the first two years (the Junior Division) for continued or supplementary work, in organized groups or through individual reading and conferences with faculty members, in any well-developed interests falling within the scope of the college facilities.

In the Senior Division the work is similar to that under the well-known 'honors' plans for selected students in certain colleges. Under the immediate direction of a counsellor as well as under the responsible guidance of the faculty of her major field, every student in the Senior Division devotes three-fourths or more of her time to concentrated work in one of the following fields or a combination of them: literature, the arts and music, science, social studies. This work is intended "to give a broad but thorough preparation in a field of adult activity in which a young woman may continue to work with interest; so that the student may graduate from college with some equipment which will be of lasting value to her, in whatever situation she may find herself."⁴

3. Black Mountain College

Unlike some other experimental colleges, Black Mountain came into existence suddenly and without the prior formation of any specific movement to sponsor or support it. In the fall of 1933 nine teachers and nineteen students, most of whom had formerly been associated with Rollins College, assembled in rented quarters near Black Mountain,

⁴ Announcement of Bennington College, 1937-1938.

North Carolina, to form the new college. Certain convictions they entertained regarding collegiate education had been found unacceptable at Rollins, and they determined to apply them in an institution to be established for the purpose. The College committed itself to "the idea of a coeducational college, unhampered by outside control, where new methods might be tried out, and where there should be candid recognition of the importance of participation in responsibility by students as well as Faculty."

The town of Black Mountain is a small, strictly rural community, 18 miles east of Asheville, at the edge of the Great Smoky Mountain region of the State. While continuing at present to occupy its original, spacious, summer-hotel type of plant in a commanding location near the town, the College has purchased a nearby site of some 700 acres and will move as soon as adequate funds may be raised for erecting new quarters.

In 1937 the student body numbered forty-eight, all but one from outside North Carolina, and the faculty fifteen. The yearly fees for tuition and maintenance are \$1250. Some scholarships reducing these charges are granted with the intent to secure representation of a cross-section of American life, both socially and economically.

The development of ability to do self-directed work is a prominent aim of the Black Mountain curriculum. Since it is felt that such work must be self-chosen, there are no required courses. The student in the Junior Division chooses whatever courses he pleases, subject to the approval of an adviser, with a view to acquainting himself somewhat with the sciences, the social studies, literature, and the arts. The student remains in the Junior Division for no prescribed length of time, but simply until he has explored sufficiently to make an intelligent choice of a field for specialization, at which time he applies for admission to the Senior Division and is granted it upon the basis of a satisfactory record of work, faculty testimony, and a comprehensive examination.

Specialization in the Senior Division is guided by a self-drawn and faculty-approved plan and is accredited, not upon the basis of any prescribed length of time devoted to it, but in terms of accomplishment. While no degrees are granted, the student usually spends approximately four years in college. Although intensive scholarship is sought, all of the work of the College is regarded as general education rather than as specific professional or vocational education. Graduation is based upon both the intellectual and the emotional growth of the student.

4. Bard College

Two of the present group of five experimental colleges, Bard and St. John's, represent reorganizations of long-established institutions. St. Stephen's College, founded in 1860 and incorporated as a part of Columbia University in 1928, had offered an arts and science program for men students in close association with the religious traditions of the Protestant Episcopal Church from which it had derived considerable support. In 1935 the name of St. Stephen's College was changed to Bard College and the new experimental program was put into operation.

The location of the College at Annandale-on-Hudson is 95 miles from New York City and 55 miles from Albany, on a wooded estate overlooking the Hudson River Valley. The affiliation with Columbia University enables the College to utilize University resources, including the conferring of the Columbia degree, while retaining autonomy and individuality in its own work.

The enrollment in 1937-1938 was 142 men, largely drawn from the Eastern States, and there were 42 members of the faculty. Tuition and maintenance charges amount to \$1500 annually and scholarship aids are available for reduction of these charges in the cases of a limited number of students.

The Bard educational program is based upon the belief that particular purposes and abilities of students discovered and demonstrated in preparatory school are motivating elements in the lives of these students and should be the centers around which, with guidance, the students should build the work of the freshman year. It is further believed that the college career should culminate in a broad cultural outlook and the ability and disposition to continue self-education in adult life.

The entering student consults with faculty members regarding the abilities he believes he has demonstrated and chooses the strongest of them as a "trial major" field in which he is expected at once to proceed with intensive study occupying about one-half of his time. This trial major does not presume the choice of a life career. The remainder of the time of the freshman or sophomore student is spent in exploration of related fields through introductory courses that are offered by each department in the College and through voluntary lecture-discussion groups and other activities of the College. Through this program the choice of the major field is confirmed or the student discovers another field in which he should more properly carry on intensive work.

The work of the later college years is thus based upon a firm rooting

in a particular field. The logic of subject matter and the lead of individual purpose guide the student into special seminars the purposes of which are correlation and integration of fields of study.

The student is not normally expected to carry more than four courses at one time. Each course typically consists of a two-hour group seminar each week for which eight hours of independent reading and laboratory work are done in preparation. A tutorial conference is held every two weeks with the instructor.

There are four divisions of instruction in the College, as follows: natural sciences and mathematics; languages and literature; fine arts, music, and drama; social sciences and history. Students are not required, however, to choose their fields of major concentration in terms of any such rigid pattern. Under the individualized program of instruction the student creates during his four years in college his own pattern or division of studies bearing the imprint and logic of his own mind with the constant purpose of achieving integrated, rather than narrowly specialized, knowledge suited both to his own individual needs and to the problems of contemporary life.

5. St. John's College

In 1784 the Maryland Legislature chartered St. John's College and in the following year provided that it should take over the personnel and properties of King William's School, which had dated back to 1696. With its roots thus in the early colonial period, the College has continued, with some interruption and reorganization at the time of the Civil War, to offer liberal arts work. Its latest reorganization occurred in the fall of 1937 with the appointment of Dr. Stringfellow Barr as President and Dr. Scott Buchanan as Dean. At this time the so-called "New Program" was instituted under the endorsement and sponsorship of President Robert M. Hutchins, of the University of Chicago, who has become Chairman of the Board of Trustees of St. John's.

Arrangements have been made for the New Program gradually to be superimposed upon the old and ultimately to replace it. In the fall of 1937 there were 180 students enrolled in the College, 20 of whom were undertaking the New Program as freshmen. The remainder of the students are to be permitted to continue under the previous plan of the College until their work is completed. All new students will in the future be required to enroll in the New Program.

The location of St. John's at Annapolis, Maryland, is within easy

reach of both Washington and Baltimore. Tuition and maintenance fees charged by the College amount to \$655 per year.

In order to understand the basic conceptions of the New Program, it is necessary to know something of the philosophy of those who have designed it. Their analysis of higher education in America has been taking form over a period of twenty or more years. Three principal propositions will briefly outline this philosophy as follows: (1) The elective system, the widespread introduction of which in American colleges is generally credited to the influence of former President Charles W. Eliot, of Harvard, has led to the disintegration into endless fractional minutiae of the once clear and defensible pattern of liberal college education and to the enthronement of irrelevant factors, such as instructors' personalities, time schedules, and practical utilities, as guides to the formation of the student's program of college work, so that the student is deprived of the organic understanding implicit in his classical heritage. (2) Liberal education has failed to make men free because it has eschewed discipline—it has not rigorously employed the useful and the poetic arts for the nourishment of imagination—and the result is the decay of the creative power of the mind, especially in speculative and exploratory thought. (3) The drift of modern higher education away from its historic content and method has permitted the energies, interests, and talents of youth to be dissipated in a plethora of unwholesome substitutes for the intellectual life—athletics, chasing the almighty dollar, 'service' activities, and the like.

In the belief that the power of the great liberal tradition of Europe and America is generally being neglected, St. John's proposes to center its program upon the recovery of that tradition. The classics and the liberal arts, the embodiments and tools of the tradition, have long been associated with the ancient languages and mathematics, but these have recently become ineffective carriers of the tradition. It is proposed to recover the tradition for education through the great classic books—the books of our Western heritage that have been read by the greatest number of readers, the books that have the largest number of possible interpretations, the books that "raise the persistent unanswerable questions about the great themes in European thought," the books that are works of fine art, the books that are masterpieces of the liberal arts.

The four years make up a single all-required course devoted to the chronological study, under various methods of instruction and laboratory experimentation, of a list of the one hundred great books. The first

year covers the period to the end of the Alexandrian age, the second to the end of the Middle Ages, the third to the middle of the eighteenth century, and the fourth ending with contemporary writers. Students are drilled five times a week in mathematics tutorials and five times a week in language tutorials: Greek, the first year; Latin, the second year; French, the third year; and German, the fourth. They also have a weekly laboratory. Seminars for discussion of the classic books are held twice weekly. The course is designed for students of any and every type of collegiate educational ability and the College believes that all types of students will be rewarded by it.

V. PROBLEMS FOR EXPERIMENTATION IN GENERAL EDUCATION: FIVE EDUCATIONAL ISSUES

Fundamentally, all the questions raised in the experimental work of these five colleges have a place within the one broad question: "What is the *nature* of 'general education' and its relation to what is sometimes contrasted with it, 'special education'?" This question may be viewed from many angles. An adequate exploration of its implications would clear up most of the important educational perplexities of the day.

Perhaps a word should be said parenthetically to justify considering the entire four-year programs of the colleges in a discussion of their work on general education, although that such a justification should seem to be needed is itself evidence of the presence of considerable confusion among educators as to the nature of general education. The five colleges here being studied, to a greater degree than would appear to be true of most colleges, regard whatever educational results they attain that may be called general education as being attained progressively, cumulatively, and in some instances imperceptibly throughout the four years of the student's presence in college. There are differences in emphasis on various levels as between exploration and intensive investigation, but these colleges are under no illusions as to the possibility of reaching the goals of general education at any precise point prior to the end of the course, if even then.

As a means of analyzing the work of the colleges in general education, five central questions will be posed and the approaches of the various colleges considered in relation to them. The five questions are as follows:

1. How should collegiate education deal with the contrasting claims of the experience of security in the mastery of some precise knowledge or skill, on the one hand, and the achievement of well-founded perspec-

tive or broad understanding of relationships in life, on the other hand?

2. How should collegiate education deal with the contrasting necessities of adequate career or vocational preparation, on the one hand, and of the cultivation of adequate intellectual interests and powers to cope with life in a world of perplexity, on the other hand?

3. How should the emphasis be placed, or the synthesis wrought, in collegiate education, as between the individual character of all educational processes, on the one hand, and the social foundation and purpose of all education, on the other hand?

4. How should collegiate education make use of the accumulated heritage of the race, as well as the distinctive setting of conditions and forces that define a problem today?

5. In what degree should the educational process in colleges be controlled in order to keep it centered in the college itself as a strategic social institution, and in what degree should it be thought of as flowing into, and through the community?

1. Special and General Education

The five experimental colleges, except St. John's, recognize the need both for a broad foundation of knowledge and for skill along some given line mainly by dividing the course into two units of two years each, the Junior Division and the Senior Division. To a degree, the emphasis in the work of the Junior Division is placed upon the acquisition through a pattern of courses of a balanced introduction to the entire range of human knowledge. At Bard, Bennington, Sarah Lawrence, and Black Mountain, the emphasis is less upon an inclusive introduction to the fields of knowledge and more upon trial and exploration with a view to the choice of a field in which the student may want to work persistently. The latter four colleges require some demonstration of adequate preparation over and above acceptable course grades before the student may enter the Senior Division.

Bard has likened collegiate education to the growth of a tree. Strong tap roots must be grown in a field of work that capitalizes a special ability of the entering student; from such a source of strength and nourishment, the branches and foliage of the later quest for comprehensive knowledge can grow. Thus it is suggested that broad vision and understanding of the scope and meaning of personal life and the social culture should be the culmination, rather than the initial endeavor, of the college course. Perhaps less dramatically this idea would be shared by the other colleges. Bard requires a Senior Project, the purpose of

which is to bring to fruition the work of the student in his major field of intensive study and to show its implications and connections in related fields. Such a project is judged both for its penetration and for its breadth of orientation. A similar purpose underlies the final comprehensive examinations at Black Mountain and Bard and the comprehensive review of the student's development before graduation at Bennington and Sarah Lawrence. At Bennington a senior project is now required in practically all fields.

St. John's combines special competencies and general knowledge in its degree requirements, which are tested both in course examinations and in a final comprehensive examination, and which are stated as follows: "Knowledge of the contents of the required books of the course; competence in the liberal arts; a reading knowledge in at least two foreign languages; competence in mathematics through elementary calculus; and 300 hours of laboratory science."

All of the colleges undertake to encourage independence, self-direction, and responsibility on the part of students. At Black Mountain a special development of this idea is found in the theory of the function and importance of music, dramatics, and the fine arts, for the introductory part of the student's collegiate education. Says the Black Mountain catalog:

In fact, in the early part of the student's career, they are considered of particular importance; because, in the first place, they are, when properly employed, least subject to direction from without and yet have within them a severe discipline of their own; and also because, as one means for coming to a realization of order in the world and to an insight into one's self, they help to complete any such realization as is reached through a purely intellectual process. Since they are, by nature, subject only to qualitative evaluation, experience in them tends to correct the sort of quantitative evaluations which the student has only too frequently come to accept. Finally the sensory and motor training inherent in these studies is not provided by work in the strictly academic subjects.

It is thus evident that, while these colleges in their different ways recognize both specialization and generalization in the educative process, they make no sharp separation of these two aspects on any level. They regard one as the complement of the other. They seek to order the experience of the student, in accordance with his individual characteristics, so as to secure sufficient alternation from one process to the other to assure both mastery and perspective in the final result.

2. Vocational and Cultural Education

American colleges range in their attitudes toward vocational considerations in their programs all the way from definitely opposing to definitely favoring the direct preparation of students for certain occupational careers. None of the present group of experimental colleges holds either of these extreme attitudes, but all fall, in varying positions, between them.

Perhaps two principal emphases may be distinguished among the five colleges:

First, all of them would doubtless support the view that major occupations, especially the professions, today increasingly require broad social understanding and an elemental scientific foundation for their practice. Therefore students are frequently advised that entrance into professional schools should be prefaced by selected, well-balanced collegiate courses.

Second, certain of the colleges more directly confront the student's prospective and present vocational needs, although qualifying their stand to indicate important limitations, such as the false sense of security engendered by too specific vocational preparation, which must be recognized. Bennington, for example, has no hesitancy in relating the requirements of the Senior Division to vocations growing out of work in the field and in providing skills and techniques for vocations entered directly from college. This college takes the view that "The type of intellectual asceticism which fears that contact with practice or reality will destroy the field for culture is not encouraged . . . A valuable part of the student's education is the assessment, early in her graduate career, of her real capacity for the work toward which she is aiming."⁵

The common practice in American colleges of outlining patterns of courses to be regarded as rather specifically preprofessional has to a degree been embodied in certain of the experimental colleges, although this practice is tending now to be followed less than formerly. One reason for the change is that professional schools are becoming less interested in admitting students upon the basis of such specific preparation and are granting the colleges more freedom to control collegiate work, while reserving to themselves the responsibility of controlling professional work. Combination collegiate and professional curricula are continued, however, in such institutions as Bennington and Bard. In

⁵ Announcement of Bennington College, 1937-1938.

these curricula the student enters professional study after three collegiate years instead of four and receives the B.A. degree after satisfactory completion of a part or all of the professional study.

Bard College develops the major field work early, even suggesting that it might wisely be begun in the high school. This is intended to free the student for fuller general education in his major field in the latter part of college. It is not intended, however, that the major field should be defined in terms of a vocation, but rather that it should ideally open up a number of different vocational opportunities. Exploration of vocational work and even preliminary practical vocational experience are provided for in the Bard and Bennington programs through the agency of the two-months' winter field-and-reading period, when the student usually leaves the campus for independent work carefully planned and accounted for at college. It is felt by some members of the faculties at both Bard and Bennington that programs of major concentration in certain fields, the arts for example, must be guarded lest they ambitiously take on the characteristics of strictly professional instruction, thus becoming somewhat isolated from the central efforts of the colleges in guiding the all-round personal development of students.

The experience of the experimental colleges in the matter of attempting to synthesize the claims of vocation and culture represents a significant movement in advance of conventional methods, but still leaves much to be desired. St. John's position seems to be that a good non-vocational education is the best preparation for later vocational education. Other colleges in this group recognize cultural values in certain vocational experiences of students and thus partially reject the dualism of vocation and culture. If there is any truth in the frequent predictions that American society is moving in the direction of a functional organization, what does this portent suggest for the unification of the college curriculum? Does it mean that cultural education in the future will increasingly be built around the motives and institutional forms of the great vocations? The experimental colleges to date have thrown little light upon these questions.

3. Individual and Social Education

It is virtually impossible for one who has not himself participated for a considerable time in the life of a given educational institution to discover accurately the effective influences of that institution upon the social outlook of students and the orientation governing the building of students' educational experiences. Furthermore, the relation of indi-

vidual and society is a classic philosophical problem and any working 'solution' of the problem by a college may be expected at best to be inconclusive.

The 'progressive education' movement has in recent years frequently been challenged to show that its concern for 'individualization' is based upon an adequate social analysis. Without any disposition to disregard the importance of individual differences in education, it may properly be asserted that some student-centered programs have hypothecated the strictly individual origin of so-called 'student needs' and have credited insufficiently the influences of social environment in creating such needs. How do the experimental colleges seem to stand on this question?

All five colleges lay great emphasis upon self-education. What is accomplished must grow out of the generation of motive power by the student. With the exception of St. John's, the colleges give the student considerable latitude in the choice of subjects for study, though with differences in the degree of latitude and in the degree of preplanning by the college. Bennington is now considering whether long experience with counseling individual students does not entitle it in the future to lay down at least certain broad categories within which all student work may be expected to fall. St. John's, of course, has a completely preplanned curriculum.

Most of the colleges lay great stress upon guidance. Sarah Lawrence leaves the building of the curriculum for each student primarily to the student and her adviser. Through the adviser the college acts upon certain assumptions regarding the goals of education. The concept of growth itself, if used to signify an educational process, implies some type of goal. To say that a program is being designed to meet student 'needs' does not mean either that these needs are individualistic or that they are 'natural' in the sense of being rigidly predetermined. The adviser's conception of the student's needs is based upon an operative system of values and implicit goals. The social culture and philosophies inherent in it condition and govern guidance in education.

Varied illustrations of the fact that individual development is to be recognized as neither an autonomous nor a strictly self-propelled process may be found in several of the colleges. At Black Mountain guidance is deliberately made partially a group responsibility of the members of the College. One observer⁶ reports as follows:

⁶Louis Adamic. "Education on a mountain." *Harpers Magazine*, April, 1936. See also *My America*, by the same author. (New York: Harper and Bros., 1937)

A common saying in Black Mountain is that nearly everyone who comes here has to go through hell. The hell he goes through is the desperate attempt to preserve this superficial self, and the most awful moment in the process comes when he says to himself, "Now they know me!" Imagine having scores of eyes focused on you, and you alone, and as many mouths saying, "Don't think you fool us. We see through you." These eyes and mouths turn the human spirit inside out. . . .

"Group influence" works from elevation to depression and back again. When they achieve elevation from depression, they think they have done it, and sit back and enjoy the peace of self-discovery. They swim in intelligence and desire to improve themselves. Then uncertainty steals upon them, and they sink again into depression. Not that the process ends here. There are continuous waves. Or, to change the figure, one's thoughts about oneself are abrasive. One rubs down and down till one touches the thing which is one's real self.

This is experience—education—of the most acute sort. Students are partly prepared for it intellectually by being told on their arrival that they must expect to change; that if they do not change, then it is useless for them to have come; they can perfectly well remain what they are by returning home. Of course they don't realize then *how* they are to change.

Gradually, two things occur. One is that one's interest in others increases in both intensity and intelligence. The other is that one begins to like, almost enjoy, the process of being changed.

At St. John's, the key to the entire educational enterprise is the rigorous discipline of the individual afforded by the college. Discussing the function of grammar in this connection, the Dean of St. John's College writes:⁷

Modern imagination is notoriously weak and spastic, the sense of humor shallow and pornographic, speculation timid and apologetic.

We need the wit and the range which verbal memory gave the ancients. These are the engrams of the imagination, formed matter that will give precision to the senses, articulateness to the imagination, and vigor to the intellect. This is the disciplinary function of grammar in the liberal arts. Our tutorials are aimed at this effect, and we are not ashamed to admit that we drill our students—and they are not always averse to admitting that they respect and like it.

We believe that rote memory does not necessarily produce *rigor mortis* in the mind; on the contrary, if the history of learning be de-

⁷ Scott Buchanan. "A crisis in liberal education." *Amherst Graduates' Quarterly*, February, 1938.

pendable, strong memory habits support and enable flights of imagination, the kind of creative imagination that makes Plato's *Dialogues* and Newton's *Principia* possible—and incidentally intelligible to the modern reader . . .

Recent years have seen a strikingly increased liveliness of the social studies in most of the colleges. In some instances this has occurred within an already liberal tradition of concern with social education by making such education take account of unpopular as well as prevailing social theories and realities. Bennington students have been engaged for a number of years in a thorough economic, historical, and psychological investigation of the Bennington locality that they call the Bennington Survey. Sarah Lawrence students have recently made studies of housing problems for a public authority in the city of Yonkers, New York. Bard and Bennington students frequently use their winter field and reading periods for investigations in social science. In these and other ways the social significance of college education is being put to severe tests.

Exactly what types of social outlook and what conceptions of individuality govern such studies and emerge from them, however, it is difficult to discover. Perhaps it is sufficient for present purposes to say that in this aspect of education—equipping the individual to understand his own human nature and to live in society in such a way as to contribute toward the betterment of society—may be found one of the most profound challenges to the present movement for the reconsideration of general education. Some colleges are predominantly controlled by a theory that takes its form from assumptions regarding the nature and growth of the individual. Other colleges are predominantly controlled by an educational theory stemming from the logic of conventional academic scholarship. Still other institutions build their curricula primarily upon the basis of an analysis of the social culture and problems of our day. Which of these policies, or what combination of them, if a combination is possible, or what other policy should guide general education in the college?

4. Educational Use of the Past and the Present

Perhaps all the colleges would want to insist that their work is designed to take account realistically of the true nature of life in the present. Perhaps all would regard their policies with respect to the study of history and the transmission of the cultural heritage as calculated to serve the educational interests of the modern man. One

cannot avoid the impression, however, that there are deep-lying differences of educational outlook among the colleges, and indeed within a given college, in this connection.

St. John's College sets the form of its courses in terms of the heritage of the race, but reports the liveliest discussion in its seminars with respect to current problems and policies. Other colleges in this group set the form of their courses primarily in terms of an empirical approach to current life, but report constant awareness among students of the necessity of treating current problems historically if they are to be viewed in proper perspective. It is impossible to suppose that these two diametrically opposed approaches yield the same results or are in general equally wise. In so far as there is the possibility that the St. John's approach may lead to a dualism between thought and action in the present lives of students, that approach would be unwise. In so far as the 'progressive education' approach may possibly permit open receptivity to empirical data to crystallize into a philosophy of classic empiricism, that approach would also be unwise. It is important to recognize that educational authoritarianism may arise from more than one source; perpetuation of vestigial remains of absolutism in a world seeking to live democratically is one form of it; preoccupation with facts, especially if they be scrupulously limited to the contemporary, to the exclusion of historical efforts at philosophical synthesis and interpretation, is scientific and is another form of it.

The primary question for general education in this connection may be stated from two angles: First, how, in the educational process, may we recognize history as continuous with the present and the future without falling into the trap of reasoning by historical analogy in confronting the problems of our own day? Second, how may we deal realistically in education with problems that appear to us to be defined in terms of unique conditions without doing violence in our thinking to the fundamental categories in which our race experience has been transmitted? In time the various approaches of the experimental colleges may shed considerable light upon this important question. As yet they have not done so.

5. The College and the Community

The American college has frequently been accused of being a cloistered institution, protecting itself from face-to-face contact with the life surrounding it. A number of the experimental colleges, while recognizing that a certain amount of such isolation is perhaps inherent

in the nature of an institution, have undertaken to bridge the educational gap between college and community.

One of the difficult questions such a college must face is: *What is the community* with which the college seeks to relate its work? The word 'community' denotes sharing. Is the community, then, the immediate geographical unit surrounding the college? Is it, at least for certain purposes, as broad as the nation, or even the world? All colleges, of course, relate themselves in certain ways to more than one such unit. The question has not as yet been squarely faced by the present group of colleges that, nevertheless, are in the vanguard of efforts to develop community-centered educational activities for college students.

The key to the appraisal of such efforts should be the extent of *participation in responsibility* afforded students in such community activities. Most efforts to date have been more in the nature of *observations* of community problems than of *participation* in their solution. Interesting and valuable beginnings have been made, however, and the historic town-and-gown antagonisms, incidentally, are in consequence withering away perceptibly.

In the Bennington Survey, previously referred to, students have constantly had to win the confidence of citizens in order to secure necessary data. This is a form of 'participation.' They have formulated plans to put the results of the studies inconspicuously into the hands of individuals and groups in a position to use them in action. This is a real part of the task of working with the community. The Sarah Lawrence housing study was made and followed up by students as a part of a public program for better housing.

Fortunate immediate community contacts have been difficult to make in several of these colleges. St. John's appears to have little in common today with the town of Annapolis, which is an important naval center, although shared interests may conceivably develop as the new college program continues. Sarah Lawrence is located in a complex metropolitan center having no singleness of purpose. Bard, Bennington, and Black Mountain confront, in varying degrees, the problem of determining what need they have for contact with urban life and how to make most effective use of such contacts as are within their reach. Of course, it is still an unanswered question whether a college is better located in a sparsely populated region or in an urban center; certainly both locations present unique problems.

To preserve a certain integrity in the group life of a college and yet to share in the life of the effective communities, numerous and over-

lapping, that make up the modern world is the task of the college endeavoring to achieve general education. There is no simple solution to this problem for any college, whatever its location, and there is every possibility of important gains in the quality of education if every college were to face the problem squarely.

VI. THE FUTURE OF GENERAL EDUCATION IN EXPERIMENTAL COLLEGES

In the light of the foregoing analysis it is possible to identify certain questions that the experimental colleges must ask themselves if they are properly to evaluate their own work and with which all others interested in the improvement of general education will find it necessary to deal in some manner. These questions, together with an indication of their significance, are:

1. How may the colleges assure themselves that graduates under these plans possess the wide range of relatively elementary, but exceedingly valuable, types of practical information required by an individual for effective living? The arts of the home, for example, appear to receive comparatively scant attention in most of these colleges.

2. How are the distinctive needs of the two sexes to be discovered and dealt with in relation to one another? Is this problem solved automatically in a co-educational college? Can it be solved in any adequate way in a college exclusively either for men or for women?

3. How are the major requirements of a general education for students who are prospective members of the great professions, such as law or medicine, to be met prior to the time when a student has intelligently identified himself with one of these professional groups and has thus been enabled to see the fundamental questions of American culture in direct relation to professional interests and problems? Should the college arrogate unto itself so exclusively as it has tended to do the responsibility for general education, or should this responsibility be shared by professional schools?

4. Is general education in these colleges still couched, to a degree, in the framework of the traditional and aristocratic absolutisms, while the surrounding culture is struggling, through science, to live in accordance with the democratic ideal? If so, do they wish to defend a cloistered position that is irrelevant to the basic trends of the culture?

5. To what degree, if at all, are the 'progressive education' colleges making a fetish of the 'needs' and interests of the individual student and

thus fostering a type of *dilettantism* in place of substantial educational work?

6. What measures are the experimental colleges taking to keep alive their *reconstructive* function as they grow older? The *conservative* function is inevitably safeguarded as an experiment becomes institutionalized and there is always the danger of insights gained through experimental effort being transposed into a new form of doctrine.

These six questions will serve to illustrate the type of appraisal necessary if the experimental colleges are to continue their significant contribution to American education. At least one of the colleges, Bennington, has formulated systematic plans for evaluation in the years immediately ahead and its faculty is constantly working as a unit upon this problem. Sarah Lawrence has been working on the college program and studying adolescent needs. Doubtless other colleges are fully alive to such problems.

To what extent is an experimental approach such as any one of those of the colleges described in this chapter—all of which have comparatively high, and some exceptionally high, tuition—possible in an institution situated somewhat more normally from the financial standpoint? It is true that highly individualized instructional procedures cost more money than conventional procedures. It is also true that large budget charges are carried in the average college for types of activities that make little essential contribution to the quality of the educational product and that would be dispensed with if the program as a whole were subjected to fundamentally critical reëxamination. Basically it is not large financial support that enables a college to be experimental, as might even be shown by an analysis of the budgets of certain of the colleges here studied.

Critical thought in the field of general education has been greatly stimulated in recent years by the experimental colleges. It is certainly not too much to hope that they will continue to blaze new trails and to contribute distinctive understandings of the complex problem of general education, which will undoubtedly have to be solved in a great variety of ways if a policy and a program for education adequate to the future of American culture are to be forged.

* We may note in this connection that Bennington and Bard have charged high tuition, not by choice, but because they have not been able to collect funds for an endowment so that large fees have been a practical device for getting a new program under way with an adequate faculty salary scale.

CHAPTER XI

GENERAL EDUCATION IN PROFESSIONAL EDUCATION

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I

THE PROBLEM

The statements incorporated in this chapter by representatives of various professions reveal one outstanding feature; namely, an awareness of the importance of general education in preparation for professional life. In this respect there is little difference between the older professions in which instruction has been institutionalized for many years, such as Medicine and Law, and the younger professions, such as Nursing and Social Work, which have more recently turned to colleges and universities for assistance in the training of prospective practitioners. The rapid extension of the training period in both the professional and preprofessional work has naturally turned the attention of educators to the types of new experiences that might desirably be added to those provided previously. While there is no uniformity with respect to the manner in which the various professions have met this problem, there are several observable common approaches to it.

Each professional group has in recent years recognized that the individual must be more than a professional practitioner. He must also be a citizen, and as such he must understand the complex society in which he lives, and the part he must play in the solution of the problems facing that society. In addition, more attention is being given to the growth and development of the individual into a mature adult capable of living a satisfying life in adjustment with the other members of the social group. It is recognized that these capacities for effective citizen-

¹ The part of Chapter XI prepared by each of these contributors is indicated in what follows.—*Editor*.

ship and a satisfying personal life cannot be achieved solely through professional study, however thorough that may be.

Professional groups are also aware of the important part general education must play in the preparation of the individual for competent professional service. As several of the contributors to this chapter point out, highly trained specialists seem to be at an advantage in early professional life since they are prepared to do well a restricted number of routine tasks. But the rapid development of new techniques and new principles soon gives an advantage to those who have been broadly trained and who have learned the theoretical basis of professional work. Moreover, it is recognized that those who have a broad general experience are better able to see the place of their own professional activity in the culture of which they are a part. This point has been made repeatedly by engineers, lawyers, and social workers. The following statement from a report of an investigation of engineering education presents this position with great emphasis:

Certainly engineers cannot assume that the mechanizing process of the past three decades will continue without check, or that sociological factors may be excluded from the analysis of engineering economy in the future, as in the past. Legal rules change slowly and legislation to meet social changes is subject to trial-and-error adjustments. Meanwhile the safety of society seems to require a type of leadership in industry and the technical professions which is highly sensitized on the side of social morals and welfare.

Similar statements from members of other professional groups could be found in abundance.

Educational investigations conducted by various professional groups have also thrown the problem of general education into high relief. Through a comparison of the records of students in professional curricula with their records in preprofessional programs it was discovered that students with broad general training do as well in professional programs as those who have concentrated in fields that seem to be basic to a particular profession. Thus, as Dr. Zapffe points out, students who major in the physical sciences in college do less well in their medical courses than those who pursue a broader program. The argument for a higher degree of concentration in the preprofessional curriculum is therefore refuted. The newer professional groups are fortunately profiting by the experience of the older and are not laying down narrowly prescribed preprofessional courses, but are recommending a broad general education.

Another value that representatives of the professions believe should grow out of general education is the ability to think, to generalize experience, to meet problems effectively in whatever field. Several contributors point out that the professional schools consider the development of this ability to be one of the primary functions of a program of general education. The program should be a testing and a training ground for those hoping to enter a profession. In this connection they point to the all-too-prevalent practice in the colleges of emphasizing the factual content of learning, with the result that students conceive education to be the verbal mastery of a body of facts rather than the understanding of the relations between things. It is urged that education be functionalized, be meaningfully related to the lives of the students, and that they be taught the techniques of intellectual workmanship, so that they will come to the professional school—and ultimately to the profession and to society—with the capacity to solve personal, professional, and social problems.

The statements that follow are sufficiently representative of the professions to indicate a common desire for a broader and more extensive general education.

II

THE RELATION BETWEEN GENERAL EDUCATION AND MEDICAL EDUCATION

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I. WHAT THE MEDICAL COLLEGES WANT

1. Changes in the Ideas of Collegiate Preparation

The problems of general education in its relation to professional education have been discussed with more or less animation by those who are engaged mainly with the education of the youth desiring to enter a professional field. Medical educators, in particular, have given much thought to the matter. By experimentation, extending over a long period of time, consisting of many shifts of opinion, resulting in elimination and restoration of subjects thought to be desirable for those who intend to study medicine, this particular group seems to have reached the conclusion that any course of study that smacks of vocationalism fails to give a proper preparation for medicine, and that only a good,

sound, basic general education will deliver men and women who will eventually prove to be good practitioners of medicine.

General educators do not seem to understand just what medical educators want, despite the fact that much has been said and written on that subject in recent years. They seem not to realize that medicine is an art as well as a science: in fact, more an art than a science. This attitude is evidenced by the fact that general educators recommend to their students who intend to study medicine later that science and more science is what they need. Perhaps they are not altogether to blame for this, because their views in the matter are the result of reading medical-school catalogs in which requirements for admission are set forth in a way that might lead the uninitiated to believe that science alone is stressed as an adequate preparation for the study of medicine. Furthermore, these requirements are variable, each school setting up what, in its opinion, is the preferred course of study, although only a minimum of science is the actual foundation for such study.

Many years ago medical colleges were compelled to include in their curricula inorganic and organic chemistry, physics, and biology. Even English and Latin, so-called 'medical Latin,' were included for the purpose of making it possible for the medical student to understand Latin terminology in medicine—although Greek furnishes more terms in medicine than does Latin—and to write prescriptions in good Latin. But, with the improvement in college courses and, especially, because of the continuing and overwhelming increase in medical knowledge, it became necessary to make room in the medical curriculum for more medicine. Therefore, chemistry, physics, biology, Latin and English were dropped from the curriculum and a knowledge of these subjects was included in the requirements for admission to the medical college.

Later, it became necessary, again, because of continuing accretions to medical knowledge, to eliminate parts of subjects from the curriculum and to stress the importance of continuing one's education in medicine by post-graduate and graduate study. Today, it is generally understood that in the four years of the medical course it is possible only to lay a good foundation on which the needed superstructure for efficient medical practice must be built by continued study and preparation after graduation from the medical college. In other words, the young graduate is not regarded as being fitted for the practice of medicine but only fitted to carry on his studies, not by experience alone but by further study as well.

During the time these gradual changes were taking place, medical educators were making careful studies of every factor that had any bearing, even in the slightest degree, on the accomplishment of their students. First of all, they soon became aware of the fact that these students lacked the proper preparation for the study of medicine. They seemed to lack the ability to grasp the import of what the medical school expected them to do. They floundered around for awhile. Many of them decided to quit; others struggled on and found themselves laden with conditions and failures at the end of the year; others failed outright and were dropped. Naturally, this led to an inquiry into the reasons for these failures. Had the preparation in college any bearing on what happened to these students in the medical school? Or did they lack the aptitude for the study of medicine, a very important factor in later success or failure? Tests of various kinds were devised by psychologists in the endeavor to determine before the student entered medical school whether he possessed the necessary aptitude for such study. Special studies were made to ascertain whether there was any correlation between time spent in college and courses of study taken there and accomplishment in the medical school later. The results of these studies are most interesting and informative.

2. The Factor of Time Spent in College

First, let me speak of the time spent in college. For many years a high-school education was the requirement for admission to the medical school. It has often been said that many of the most outstanding men in medicine were only high-school graduates. True, but it never has been shown how many of this group of high-school graduates were utter failures in medical school and later in the practice of medicine. Furthermore, during those years the comparatively small amount of knowledge in medicine did not call for much previous education. Courses in the medical school began with one year of six months; then a second year—a repetition of the first year; then two years with a graded course; then three and, finally, four years. Then the admission requirements were increased to one year of college work; then to two years of college work, which is the minimal requirement for admission today. However, only a very small percentage of the medical students of today, not more than eight percent, have less than three years of college work. Thus far, these requirements have not been raised to three years of college work—although such an increase is in the offing—since careful studies have shown that because matriculants from this

group are selected with the utmost care, they do very creditable work in medical school. Nevertheless, the consensus is that another year will make it possible to take courses that medical educators regard as being fully as important and essential—if not more so—as are the courses usually embraced in the curricula of the first and second years of the arts college. And that brings me to the real problem of the relation of general education to professional education.

3. Early Vocational Training Does Not Make for Success

What is expected of the future physician? What makes the successful practitioner of medicine? Is it the possession of a vast store of factual knowledge or the ability to make good use of his knowledge? Is this ability to make use of knowledge dependent on a natural aptitude or on a good general education, which has shaped the student's mentality rather than crammed his powers of memory to the saturation point? Studies made to determine the answers to these questions have shown definitely that no matter what courses the student may have had in college, if he has not learned how to think, how to reason, how to marshal what he knows to the end that he can give the answer to any question that may arise, he lacks what is needed to make a successful practitioner of medicine. In other words, he must have acquired an education, not a training; he must be able to make use of what he has learned, not to repeat or reproduce what he may have stored up in memory—parrot fashion. He must be an educated man in every sense of the word. At a meeting of educators held not so long ago, an engineering teacher proposed that 'vocational' training start with the high school! What a lot of educational robots that course would produce. Every man would know much (or little?) of one subject and nothing of anything else. No need for general education in this scheme of things. Culture would be forgotten entirely. No need for the humanities; for the classics; for literature. I am convinced that vocationalizing in education has done far more harm than good. It is the 'moving belt,' so-called, in education.

Medical educators have gone on record as being opposed to 'pre-medical' education in any form. They even do not like the term. They did not coin it; the colleges did. It smacks of restriction, of stunting the intellect in every direction but one. It makes it seem that medicine is not all-inclusive; that it only demands knowledge in a narrow restricted field; that it is not real education but only a passing track of education; that one can be a good physician and not know much of

anything but medicine. The great physicians of the past—and of today, for that matter—were not only good physicians; they were also scholars, possessed of a real education, one which, from the vocational point of view, has nothing whatever to do directly with medicine or medical practice. In my opinion, the only 'premedical' advice to be given the student who intends to study medicine is that he secure a good education, which should include the minimal requirements for admission to the medical school of his choice. Nor should he choose those courses that are easy to pass, with an eye to taking the easiest road to acquiring the needed 'hours' for passing or for the degree at the end of the four-year course.

4. The Advantages of a Background of General Culture

Careful study of results over a long period of years has shown that students who have neglected the cultural subjects do not do as well in medical school as do their fellows who have pursued the opposite course. So, we find, that the ranking group of students in medical school are the bachelors of arts; then come the three-year college men; then the two-year men; and fourth, and last, the bachelors of science. This is not an exceptional occurrence. It has happened that way for the past ten years during which this study has been made. Is there any significance to this? College men say, with frequent repetition, that there is little difference between the arts and the science degree courses, but that little difference seems to be a determinant in what the student does in the medical school. Then, too, there is a difference between colleges. The students from some colleges fare badly year after year, regardless of what degree they may hold. And the students from other colleges do well year after year regardless of the degree they hold. Perhaps, teaching has something to do with this. I think so because I have seen it happen when a certain teacher left one college and went to another college, there was an immediate and appreciable change in the accomplishment of the students from these two colleges. The good students came from the college with which the teacher was connected. Is there any significance in that happening? I think there is.

It is possible for a student to enter the medical school without being able to present credits for any of the subjects required for admission, but only by special permission of an authorized body, the Executive Council of the Association of American Medical Colleges. Personally, I would accept a fine Greek scholar, or one with a good education in

the classics or in mathematics without sufficient credits to meet the minimal requirements in chemistry, physics, or biology because I would feel certain that he would do well in his medical studies. He is a student; a scholar. He can learn what he must know without placing too great a strain on his intellect. Medicine, being largely an art, calls for a good education in arts, in the humanities, in the classics, in philosophy. Why do medical educators now insist on economics, sociology, genetics, psychology, philosophy, and mathematics, rather than on more science? Because the physician must be familiar with these subjects if he is to be a true physician. He must know people; understand them; be able to solve many of their problems. Treating a patient for his physical ailment is not all of his problem. There is much more to treat; the man must be treated. To do that calls for a very high type of fundamental education besides some knowledge of science. The old-time family doctor may not have known as much of medicine as his prototype of today, but he did know his patients. That is what is needed now.

If general educators would keep all this in mind, it is certain that they would revamp their courses, change their attitudes, cease trying to be 'pre-' men, and give to their students advice that would be diametrically opposed to vocationalism and that would stress the need for general education along lines that will fit men and women for any vocation in life. Everyone should know some chemistry, some physics and biology, some physiology, some psychology, some philosophy; and everyone would be far more apt to succeed with such a broad foundation, supported by an education in the classics, in Greek, in Latin, in the humanities, than if he had spent a strenuous four years, or less, in science and in the pursuit of credits sufficient to enable him to pass.

II. SUMMARY

Summing up, I will stress the need for more college work; for a broader, less intense, course of study; for teaching more suited to our needs; for more culture and less science, without in the least depreciating the value and worth of science. The art of medicine must be conserved. It has been neglected for a long time. The need for a broader education of the physician, to the end that he will serve the patient as a human being and not as a case of any particular disease cannot be stressed too much. It should be the first thought of the general, as well as of the medical, educator. If we will do that, the results will be much better than they have been for a long time. It is not credits or

hours that count; it is knowledge and the ability to make good use of that knowledge. That is real education.

III

GENERAL EDUCATION IN RELATION TO LEGAL EDUCATION

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There is general agreement that a lawyer needs as broad an education as possible. In the course of a busy practice, a lawyer, unless he limits the scope of his work, must use practically every field of knowledge. It may be a case of alleged poisoning, or an altered document, in which a knowledge of chemistry is essential. It may be an accident case, in which principles of physics or a knowledge of human anatomy are important. Instances could easily be multiplied to show the wide range of information that a lawyer engaged in general practice needs.

I. THE LAWYER'S NEED OF GENERAL INFORMATION AND CULTURE

It is too much to expect, however, that a lawyer shall possess, when he is admitted to the bar, all the knowledge of law and all the information of a general character that he will need in his practice. Schools of law, therefore, do not profess to give to the student all the information that he will need for a life of practice. In a three-year period they can only hope to give him an acquaintance with the elementary principles of a selected number of subjects, and to develop what is sometimes called a 'legal mind,' by which is meant the capacity to reason logically, to distinguish between the relevant and irrelevant in situations presented by cases, and to appreciate what the social considerations are that influence courts in the selection of the principles they use to justify the judgments they render in cases presented to them for decision.

Nor can it be expected that colleges of liberal arts, in which the student studies from two to four years before he begins the study of law, will be able to give him all the more general information that he will later need as a lawyer. But, from the point of view of preparation for law, the period of academic study, whatever its length, should accomplish the following purposes:

.. In the first place, it should serve to discover and eliminate the

student without native ability or industry. A 'fing' in the Law School should not be required to achieve this necessary end. It should give the student, in at least elementary fashion, an acquaintance with those fields of knowledge generally designated as the social sciences, because they deal with the facts or assumptions upon which principles of law rest. It should develop in him an interest in these subjects, so closely related to law, that will impel a continuance of reading and study after the period of formal education has ended.

The period of academic study should, of course, develop capacity to think clearly and express one's ideas with precision and clarity. Moreover, it should give to the student an acquaintance with those branches of knowledge that do not have an obvious and immediate vocational value to lawyers, but which are essential to a broad culture. Otherwise stated, the period of academic study should be built upon a recognition that the student is to be a citizen and perhaps a husband and a father. His general education should be such as will produce a cultured citizen, equal to an interested and efficient discharge of the duties of citizenship. A lawyer should be more than a thorough and efficient legal craftsman; his training should prepare him for a position of leadership; he should, ideally, possess that breadth of knowledge and interest that characterize those of our lawyers whom we think of as statesmen.

II. IDEAL STANDARDS

It would scarcely be contended that the foregoing does not represent a somewhat idealistic conception of a lawyer's general education. It must be recognized, however, that in formulating the requirements as to academic study, law schools are compelled to stop short of what they consider ideal. The requirements as to general education imposed by those who make the standards for admission to the Bar are, as a rule, lower than the requirements for admission to the law schools, and generally a good deal lower than legal educators would consider ideal. Law schools, however, cannot prescribe standards a great deal higher than those prescribed by the Bar Examiners. If they should do so, commercial schools would spring up with lower requirements for admission, and attract those who could be made to believe that the education required by the admitting authorities is all that is necessary.

III. AMOUNT OF ACADEMIC STUDY DESIRABLE

In 1921 the American Bar Association went on record as favoring a period of at least two years of academic study prior to admission to

legal study. As a result of a vigorous campaign that has been waged since, in behalf of higher standards, only eleven states now permit practice before their courts of last resort by lawyers having less than two years of general education at the college level, but, according to the *Annual Review of Legal Education* for 1937, no state requires more than two years of general education as a prerequisite for admission to practice. However, many law schools now require for admission more than two years of academic study; a considerable number require three years, and a few require an academic degree. If, however, they felt altogether free to prescribe an ideal requirement, most schools would probably require four years of general education, and admitting authorities in the various states would doubtless also prescribe higher standards.

The view has been expressed that three years is the ideal period of academic study, standards in liberal arts colleges generally being what they are. The objection to the fourth year is based on the belief that the student has learned how to get by with the least amount of work by the time he has completed his junior year, generally rests on his oars during his senior year, and develops habits of superficiality and laziness while enjoying college life and devoting himself too much to extra-curricular activities of small value.

IV. DIVERGENT OPINION ON ACADEMIC SUBJECTS DESIRABLE

There has never been general agreement among law teachers as to what specific academic subjects should be studied in advance of law study. On a few occasions it has been proposed to the Association of American Law Schools that its members require credit in certain subjects as a condition to admission, but such proposals have always been rather quickly and summarily rejected. It would be generally agreed that the student should have a generous amount of training in English, literature, and language, and some speech, for the purpose of developing the capacity to express himself clearly and concisely. The ability to think clearly and logically should certainly be developed by academic studies, to whatever extent is possible, but there does not appear to be general agreement as to what studies are best adapted to this end. Many are of the opinion that mathematics and the exact sciences are best adapted to this purpose; others think logic effective. Still others insist that almost any subject is capable of being made effective for this purpose if it is handled by a teacher who emphasizes clearness

of thinking and precision of expression. It would also be conceded that a prelaw course should give to the student an acquaintance with those fields of knowledge that are basically related to law. The phrase 'social science' is oftentimes used to suggest, broadly, this group of subjects. As so used, it includes history, political science, economics, sociology, philosophy, and psychology.

Another subject that is considered of general importance is accounting. As the business man consults his lawyer more about his affairs, it is increasingly necessary for the lawyer to understand his client's business and system of accounting.

Both the nature and the amount of general education that it is practicable to require must depend upon the extent to which educational opportunity prevails. The requirement of two years of general education at the college level as a prerequisite to admission to practice does not offend our notion that membership in the legal profession should not be limited to the privileged few, but such a requirement would have been unreasonable fifty years ago because the percentage of persons who could acquire two years of college education was then so small. To have imposed such a requirement then would have made membership in the legal profession possible only for the well-to-do. As educational opportunities become more general, the required period of academic study will be lengthened. Requirements as to the quality of such academic work will also be more generally imposed and generally raised, with a view to recruiting the profession from the more promising of those who aspire thereto.

IV

GENERAL EDUCATION IN THE SCHOOL OF ENGINEERING

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I. THE EMPHASIS UPON SPECIALIZATION PRIOR TO 1930

Beginning in 1930 with the issuance of the Wickenden Report,² there is observable a definite trend toward liberalization of the engineering curriculum. Of the schools devoted predominantly to engineering, the California Institute of Technology seems from its founding to have

² Sponsored by the Society for the Promotion of Engineering Education.

provided an adequate balance between cultural and technical studies. Its older colleagues, however, passed through a quarter century or more in which the advance of technology lured the student to premature specialization at the expense of his general education. The institutions yielded steadily to this enthusiasm. The above-mentioned survey of engineering education shows that by 1929 only 13 percent of the curriculum in the representative institutions could be called cultural, including usually English, economics, and a foreign language.

The demands of a rapidly expanding industry and the development of new techniques, including aviation, air-conditioning and refrigeration, radio, and stainless steels, placed premiums upon special skills in these fields. New courses of specific instruction were created and parents showed a growing preference for sending their boys to those schools offering the most modern-sounding curricula. The prospect of studies in aeronautics will attract almost any sub-freshman more effectively than will the prospect of history, and it promises to get him a higher salary upon graduation. If he follows the lure, it means that his general education is effectively ended when he graduates from the high school.

Many engineering educators, prior to 1930, were as enthusiastic about specialization as were the boys, and justly proud of the new technical developments in their chosen fields. The engineering educator is by nature one who is more interested in the materials and forces of which he has special knowledge than in men and affairs generally. His sympathy for the liberal arts and the social sciences never having been very great, his conscience was troubled little, if at all, by the gradual disappearance of general education from the curriculum as the demand for the new technologies grew. Commencement orators and dedication speakers might plead eloquently for breadth of educational foundation. Even highly successful engineers might adopt this theme, but the professor's conviction still remained that general education could be gotten *after* college—from the radio, the press, and the motion pictures—that college was the place to arm oneself with the latest specialties available. If our American high schools didn't complete the boy's general education as the European ones do, so that he might be ready for specialization in college, it was not the fault of the engineering educators. And neither the professors, nor the boys themselves, nor their parents seemed to think that at this stage time could be spared from their chosen careers for general education.

II. THE INFLUENCE OF THE WICKENDEN REPORT

When jobs for graduates became scarce in 1931 and 1932, and when specialists of all kinds—engineers, lawyers, journalists, and business men—showed in this crisis their lack of backgrounds broad enough to cope with the fundamental issues arising, educators and industrial leaders alike began to wonder whether our educational policies had been soundly and broadly conceived. The Wickenden report was read with new understanding. Conversations were recalled in which our engineering alumni had said that after they received one or two promotions, most of their problems and opportunities were non-technical. Questionnaires were circulated to alumni and President Compton, of the Massachusetts Institute of Technology, stated that the answers showed less than half of the engineering graduates following the specialties they had pursued at college. Our most eminent engineering graduates were still stressing in their addresses general education in preference to premature specialization, and in the midst of the country's dilemma these statements took on new significance.³

III. SIGNIFICANT LIBERALIZING MOVEMENTS

1. At the Massachusetts Institute of Technology

The Massachusetts Institute of Technology was among the first to take action. An old regulation demanding at least 15 percent of liberal studies was given new effectiveness by the appointment of a joint committee representing both engineering and the humanities to integrate the non-technical courses into a coherent program. This step was important. Other institutions may have had 15 percent of the total work in the humanities, but it was usually in unrelated courses scattered throughout the four years, wherever it would fit in without interfering with the vocational program. One or two semesters of English in the freshman year, a foreign language (hardly sufficient to give access to the foreign technical literature) in the sophomore year, nothing but engineering in the junior year, then economics and a scrap or two of 'electives' in the senior year were a common fare. Massachusetts Institute of Technology prescribed two semesters of "General Study" in the sophomore year. The student chose one of four sequences at the beginning of this year: "The History of Western Civilization," "The

³ Gilbert E. Doan. "Our sons specialize" *The American Scholar*, 6: 1937, 294-303; and "Enduring values in Engineering Education." *Journal of Engineering Education*, 27: 1937, 680-685.

History of Science and Thought," "Esthetics and Art," or "Social Science." This choice he pursued whenever "General Study" appeared later in his curriculum.

The importance of this step, announced in September, 1936, was three-fold. It integrated the non-technical studies; it kept alive the students' interest in general fields through the sophomore year, where it had usually died; and, perhaps most important of all, it concentrated the attention of faculty and students upon the importance of general studies in preparation for a specific career. The example set by the leading engineering institution of the country is likely to have far-reaching effects.

2. At the Carnegie Institute of Technology

An important step in the same direction was taken likewise by the Carnegie Institute of Technology. Its new president, R. E. Doherty, prior to a few years as Head of Electrical Engineering and Dean of Engineering at Yale, had served more than twenty years at the General Electric Company in close association with C. P. Steinmetz. He realized fully the need for broad foundations in engineering education, and almost upon his arrival at Carnegie got his faculty to agree to set aside 25 percent of the curriculum for general study, about the same proportion as that at California Institute of Technology.⁴ This plan includes an integrated four-year program in social relations, which has received very substantial support from the Falk Foundation for its continuation. The growth of graduate schools in engineering likewise is relieving the pressure of specialization in undergraduate curricula.

3. At Lehigh University

At Lehigh a supplementary project called 'the program in general education' is being tried with the same end in view. Superior freshmen are invited to join and are assigned to an adviser or a tutor whose function it is to ascertain and develop their strongest non-technical interests and to awaken and nourish new ones during their four college years. This aspect of the program, in operation for only two years, is in addition to the regular curriculum. But all of the regular engineering curricula at Lehigh have likewise adopted 20 percent of non-technical

⁴ In 1934 while at Yale, Dr. Doherty instituted a similar program in the department of electrical engineering. See R. E. Doherty. "Some adjustments in policy and practice in engineering education." *Journal of Engineering Education*, 25: 1934, 26-48.

studies as a minimal requirement. These studies, in the case of one engineering department, have been planned, with the aid of the College of Business Administration and the Arts College, to yield both a field of concentration as well as a field of distribution in humanitarian studies, the latter to allow for individual preferences on the part of the student. Adoption of this plan by other departments is now under consideration.

4. At Other Institutions and in Industrial Concerns

Most colleges have added survey courses in the social sciences and have given renewed attention to English and economics and sometimes psychology, usually, however, with definitely vocational goals.

More adequate programs may be expected at any time, although some colleges may be conservative in undertaking modifications of this kind. Since a considerable degree of selection has already been carried out when a student chooses engineering as a career, it is inevitable that student bodies are by nature less interested in the humanities than the average, and less receptive to courses in general study. Many of them are inherently limited in academic intelligence and should become technicians rather than engineers. The exceptions are, however, in most cases the best engineering material of the entire group and the ablest students.

While sub-departmental heads and small companies in industry still look for specialized skills in hiring graduates, such as the ability to do electric welding or knowledge in a sub-field of organic chemistry, and offer bonuses for such skills, the better organized companies are employing personnel officers with instructions from above to choose men capable of comprehending and meeting fundamental shifts in industry and who, by virtue of their broader foundations, can develop the ability to handle the larger responsibilities ahead of them. Such men learn rapidly to understand the immediate technical problems that may confront them and they bring with them more vision and comprehension for mastering these problems.

Most fortunate is this championship of a broader educational foundation by the large-scale employers of engineers. This influence should ultimately bring the desired changes in the attitudes of engineering institutions and gradually also in the viewpoints of prospective students and their parents. The results should benefit the future engineer as well as industry.

V

GENERAL EDUCATION IN THE SCHOOL OF ARCHITECTURE

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I. MODERN TRENDS IN ARCHITECTURAL TRAINING

Professional training in architecture is only now emerging from a rigid academism. It had for the most part turned its back on the system of apprenticeship and had come to subject the student in architecture to the historical formula derived from the École des Beaux Arts in Paris, in which the study of the historical masterpieces, the monument, and the 'Classic orders' took preëminence. Architectural design had become a training in esthetics divorced from living needs; plans were drawn and embellished to conform to abstract starry patterns, elevations were conceived as 'facades,' the details of which were taken from the vocabulary of historical precedent.

The challenge of modern architecture made itself felt in the schools. The challenge opposed academism with a vital functionalism. It asked that buildings be designed from within to without, taking into account new materials and new forms of construction. It asked that architecture be created for the individual and social life that would take place within the building and not for the sake of outward show, that it deal with the needs of human beings in terms of modern society; it asked that the architect be concerned with housing, the community, and the larger problems of planning, so that architecture would relate to social needs rather than boast of well-filled pocketbooks and individual power. It asked that architecture come down to earth, that the building relate to site and grow organically out of the needs of the common life.

II. MAJOR OBSTACLES TO A CHANGED CONCEPTION OF
ARCHITECTURAL TRAINING

1. The Prevailing Departmentalized Curriculum

In order to meet the challenge, the professional schools had to face two major obstacles. The first was the departmentalized, non-functional curriculum imposed by the parent engineering school. Although the problem method was followed in the study of buildings, the study of construction, of mechanical equipment, and of economics—

elements vital to a realistic solution of design—was given in compartmental courses, held stringently aloof from the problems on the drafting board. Buildings were not conceived as structural organisms in their societal environment, but rather as pictures on paper.

2. The Lack of Needed Preliminary Training

The second obstacle was the lack of proper preprofessional education. Like its parent engineering school, most architectural departments admit students directly from the high school. This situation not only handicaps the student in his study of architecture, but also accounts in part for the high mortality rate, which frequently reaches 90 percent, since few of the students go beyond the first or second year of training.

III. THE NEED FOR A PROGRAM OF GENERAL EDUCATION

Both of these obstacles point out the need for a program of general education. In the early years especially, the student in architecture needs general orientation and clarification of the field. The student who will eventually enter practice needs to study the personal-social-economic-industrial areas of general education in order to create functional buildings. The student who will not continue in architecture needs the general education that will benefit him wherever he may turn. Architecture is uniquely able to give both types of student this general training.

1. The Nature of Architecture

The implications for general education in architectural study lie in the nature of architecture itself and in the process of architectural design. The architectural design requires a thorough analysis of the functions of the building—its purposes and uses; it requires a mastery of technical means—materials and construction; it requires a knowledge of climate and geology—load-bearing capacities of soils, prevailing winds, orientation, and changes of temperature; it requires a knowledge of equipment—utilities and services, heating, ventilation, illumination, and sanitation; it requires a knowledge of building crafts, trades, and industrial production; it requires a knowledge of economics and law—costs, interest charges, insurance, contracts, arbitration, and fiduciary responsibility; it requires a training in esthetic problems of materials and processes—color, surfaces, tooling, machining, proportion, and scale. All this knowledge the architect must fuse in the creation of harmoniously related spaces for human use.

But beyond this factual knowledge, the architect must have a thorough understanding of the needs and desires of human beings, an exceptional grasp of personal life and social living. He must see the house, for example, not merely as a collection of parlor, bedroom, kitchen, and bath, but as the provision of space for private life and social intercourse, play, and study; as a shelter to enhance family life. As Lewis Mumford has put it:

[The modern dwelling] is primarily a biological institution . . . a building arranged in such a fashion that meals may be easily prepared and served, that the processes of hygiene and sanitation may be facilitated, that rest and sleep may be enjoyed without disturbance from the outside world, that [the rearing and] care of the young may be carried on under favorable conditions of companionship and supervision.⁵

Similarly, in the design of the school building the architect must search beyond the layout of the 'typical classroom' and go further than the stacking of classrooms, corridors, and auditoriums. He must learn the purposes and processes of education, become aware of newer trends, create spaces for newer activities. He must understand the value and uses of new tools of learning and teaching, such as the motion picture and the radio, and take into account the growth of the school as the cultural center of the community. For the organic solution of the school he must determine where the school is to be located and why, in short, he must interpret the social function of the school.

The student of architecture must therefore make a basic study of the society we live in, and the society we are trying to form. For this he must start with a study of relations—relations to the social order and relations to the physical surroundings, site, and buildings. He must become a planner in the widest sense. His study must cover "the range of what is needed to express in the environment the best planned life of the community." This study can be functionally made in the problems that confront him for solution.

There is on the whole little recognition of this opportunity for general education that could emerge from the study of the problems of architecture. The emphasis for the most part has been on the esthetic approach, but the demands of modern architecture are forcing both practitioners and students to the larger view of their problems. Here

⁵ Lewis Mumford. *The Culture of the Cities*. (New York: Harcourt, Brace and Co., 1938) P. 466.

and there in the schools are individuals who perceive the implications of the study of architecture as general education, not only as a study that is cultural because of its historical and artistic traditions, but also because it is the structural and physical expression of our culture and requires the study of the interrelationships of the social, economic, physical, technical, and spatial elements of our environment.

2. The Work of First-Year Students at Texas Agricultural and Mechanical College

Both for professional training and for the general education of the many who will not continue into professional life, it is especially important to emphasize these needs, functions, and relationships in the early years. One approach may be illustrated by describing a part of the work of first-year students at Texas Agricultural and Mechanical College.

In lectures and discussions, on field trips for direct observation, and by reference to the knowledge of the students themselves, a broad survey is made of types of buildings. The students begin by making a classification of building types, noting the variations within each classification and where and how these classifications overlap. *Every phase of the culture is inevitably included.* The classifications that follow are arbitrary; they result from the concentration on physical structures. For example, a general classification might be termed 'leisure,' but the students decide that the essential functions of entertainment and sport create different building schemes for the use of leisure time. The one tends toward large groups of people, as in the theater, and the stadium; the other toward a different kind of planning for individual or small-group active participation. On this basis, for example, the students agree that major league baseball is fundamentally a form of entertainment with commercial overtones and has been only misnamed a sport. The classifications:

Habitation: The problem of individual, family, and community living. (Houses, housing, hotels, apartments, resorts, etc.)

Education: The problem of bringing together two levels of knowledge, experience, accomplishment, etc. (Schools, universities, laboratories, libraries, museums, aquaria, expositions, exhibits, etc.)

Transportation and communication: The problem of movement of peoples, goods, and ideas. (Gas stations, railroad stations, bus depots, docks, airports, telephone and telegraph offices, etc.)

- Industry: The problem of production, both manufacturing and agricultural. (Various kinds of factories and shops, as well as dairy farms, barns, etc.)
- Commerce: The problem of distribution and consumption. (Buying and selling of goods and services, shops, stores, offices, etc.)
- Government: The problem of social organization and control. (Court houses, city halls, state capitols, prisons, fire and police stations, etc.)
- Entertainment: The problem of 'passive' participation in recreation. (Motion-picture theaters, arenas, ball parks, etc.)
- Sport: The problem of 'active' participation in recreation. (Parks, playgrounds, swimming pools, beaches, etc.)
- Religion: The problem of worship and commemoration. (Churches, cemeteries, mausoleums, memorials, etc.)
- Hospitalization and sanitation: The problem of segregation. (Health stations, hospitals, clinics, sanatoria, etc.)
- Decoration: The problem of ornamentation. (Fountains, park areas, landscaping, etc.)
- City planning: The problem of unification and integration. (Planning in its widest application to combine, associate, interrelate, integrate, and harmonize all the above classifications.)

This outline gives only a telescopic view of the multitude of building forms discussed and examined, the wide search and study that is made, the variety of relationships, and the richness of learning.

The study of these classifications and their functions portrays the entire culture in all its social and economic relationships. The student sees the pattern of living and working: making and distributing things, movement and dissemination of ideas, problems of private and public health. He analyzes the organization and functioning of his democracy; he discusses land utilization and conservation; he analyzes and discusses problems of education. One of the most intense discussions has centered on the difference between education and entertainment in the problem of the motion pictures, another on the relations of labor to industry and government.

The foregoing description indicates how these students acquire an outlook on, and a broad study of, present-day culture in terms of its architecture. They see shelter as a problem that penetrates, is integral with, every human activity and relationship. They see it as a social study. They become aware of it and in many cases sensitive to all aspects of their environment, and they make an exhaustive study of the particular problem of shelter that is most near to them, the problem of habitation. Whether they become professional architects or not,

they have been given a type of general education vital to them as individuals and citizens.

VI

GENERAL EDUCATION IN THE SCHOOL OF BUSINESS ADMINISTRATION

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I. GENERAL COMPARED WITH VOCATIONAL EDUCATION

The seemingly contradictory use of terms in the subject of this brief discourse will be immediately recognized. Training for business has distinctly occupational connotations, whereas by 'general education' is meant that aspect of the student's program which is not definitely vocational in objective.

This definition of general education, however, answers one question merely by asking another; namely, what are the characteristics of unmistakably vocational education? Vocationalism as an educational objective, particularly as exemplified in the curricula of professional schools, has frequently been roundly condemned as a pariah in the chaste society of the higher learning, though its critics have not always taken pains to supply a bill of particulars with reference to its undesirable attributes.

This condemnation, insofar as collegiate schools of business are concerned, has doubtless often been richly deserved, though there have been perchance extenuating circumstances in the case. Training for business is a comparative newcomer in the field of professional education. In most such schools the oldest graduates have scarcely yet reached middle life; and it is no understatement to say that the influence of these alumni upon business leadership is as yet virtually negligible. Though enrollments have risen steadily, student bodies have for the most part been drawn from sections of the community in which social and economic status has not been particularly helpful in securing special preferment in business. Unlike law, medicine, and even engineering, in which apprentice training long since became institutionalized, their training programs have not yet been universally recognized as the logical educational preparation for business to be chosen in

preference to other courses of study, not excluding even the divisions of the liberal arts. With the possible exception of accounting, few occupations in business have (perhaps, ever will) become so particularized that they may be defined and encompassed within narrow professional limits. Schools of business have thus from the beginning been under burden of proving that any specialized formal training was an essential or even a desirable undertaking in preparation for business success.

It is small wonder, under these circumstances, if they have sometimes unwisely succumbed to the demand for practical courses. Nevertheless, there is some reason to believe that progress in devising a more respectable program of professional training has been made during the sobering years of the past decade.

II. A CONSPECTUS OF THE CURRICULAR OFFERINGS OF TWELVE SCHOOLS OF BUSINESS ADMINISTRATION

I have before me as I write a tabulation of the curricular offerings of twelve representative schools of business chosen almost at random, which in the emphasis upon general, as opposed to narrow vocational, training, I venture to assert, would compare very favorably with any similar tabulation made only ten years ago.

The analysis, as hastily contrived from an examination of catalogs, obviously provides no basis for careful quantitative evaluation. The titles and descriptions of courses as they appear in published announcements are notoriously misleading. Courses presumably of the most general sort often have little claim to cultural significance, whereas courses of the most technical implications may in the classroom, when interlarded with the rich philosophy of an able teacher, prove to be the most broadly significant offerings in the entire list. This study, may, however, show the drift of some few straws in the wind of training for business.

1. A Division of the Schools into Three Classes

Of the twelve institutions included in the list, two are so-called 'graduate schools,' that is, they require for entrance the bachelor's degree (not necessarily, though usually, in liberal arts). With no intentions to make invidious comparisons, these will be designated as Class A. Five offer a combined undergraduate-graduate program in that they require from one to three years of college work in general education as a requisite for entrance and without exception offer some

work extending beyond the normal four-year period of undergraduate work. These, I shall call Class B. The five remaining schools in the list, designated as Class C, offer a four-year undergraduate program. Some in this class, in addition, place considerable emphasis upon graduate work; some practically none at all.

2. A Classification of Courses into Five Groups

The offerings in each of these classes have in turn been listed under five categories as follows:

- Group 1. General education; that is, strictly non-business courses, similar in all respects to offerings in the programs of Liberal Arts and Sciences.
- Group 2. Tool courses dealing with subject matter usually occupying some place in the advanced work in the divisions of Arts and Sciences, but segregated for instructional purposes with particular emphasis upon their application to business.
- Group 3. General professional training, dealing with broad principles of business, though not offering specific training with distinctly occupational bias. Courses in this group are frequently elected by students in Arts or Sciences.
- Group 4. Specific professional training dealing with the applications of principles in special situations, either with regard to specific businesses or specific managerial functions in business.
- Group 5. Vocational courses of a very narrow sort, amounting in effect to specific job training.

The offerings of Group 1 are, of course, excluded from the programs of both Class A and Class B, where training of this type is prescribed as a prerequisite for entrance, amounting quantitatively to a minimum of two and a maximum of eight full semesters of work, with the average for the seven schools thus represented amounting to five semesters of prescribed prebusiness training. In the Class C schools with no such prerequisite, work included in this group amounts to an average of 35 percent of the total, or not quite three semesters.

Courses classified in Group 2, which are essential tools of professional work, comprise 20 percent of the total offerings in Class A and approximately 15 percent of those of both Classes B and C.

Courses of Group 3, of distinctly foundational character in professional training, comprise 30 percent of the offerings of Class A; 20 percent of those of Class B; and 15 percent of the total offerings of Class C.

Courses in Group 4, of considerably narrow professional significance,

comprise 50 percent of the offerings of Class A; 48 percent of those of Class B; and 22 percent of those of Class C.

Courses of Group 5, which by their nature have least claim to recognition in professional education and make no pretenses as general education, are wholly absent in the published offerings of Class A, seeming somewhat to justify the claims of distinctly professional status. Specific job-training courses of this sort comprise 17 percent of the total offerings of Class B and 13 percent of those of Class C. In fairness to the latter two classes, it must be said, however, that the relatively poor showing in this respect is alleviated in part by the fact that those courses are for the most part electives for which, in some rare instances, only partial credit in fulfillment of degree requirements is allowed. With respect to Class B, where this showing is particularly bad, the loading is made somewhat heavier by the fact that included in this group is a liberal sprinkling of teacher-training courses, which, it is felt by some schools in this group, are essential since they offer, in addition to professional business training, work for prospective teachers in commercial subjects at the secondary-school level—teachers who must, in order to meet the demands of school boards, be able to show credits supposedly guaranteeing pedagogical proficiency. By reasonable standards, however, there is room for doubt whether a course in the teaching of high-school bookkeeping is less open to condemnation on the grounds of vocationalism than one in typewriting, tabulating-machine operation, retail salesmanship, or time-and-motion-study technique, all of which have been noticed in the list.

For the twelve representative schools combined, approximately 10 percent of the total offerings fall into this Group 5—not a particularly creditable showing, but certainly not, on the other hand, convincing proof that the work of representative schools of business is largely of trade-school dimensions.

How a proper balance between general and professional training is to be maintained and administered in the business-school curriculum is a question that naturally is likely to be answered in various ways, as is indicated in this threefold classification. Some insist that a four-year program containing a gradual transition from undergraduate general education to that of distinctly professional, if not vocational, leanings is to be preferred. Some contend that the transition should be abruptly made, with no responsibility on the part of professional school administrations for the preparatory period of general training, which they hold should be no different for potential business men than

for other educated members of society. With reference to how much time this preliminary training may be reasonably expected to require, there is again sharp difference of opinion. Who knows best concerning the proper division of time between general and professional subject matter? This administrative question as to where responsibility shall rest is one that only time and further experimentation can determine.

VII

THE RELATION BETWEEN GENERAL EDUCATION AND NURSING EDUCATION

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Although nursing as a vocation is very old and some kind of system of training for nurses has existed for hundreds of years, the first organized preparation of a professional type began in 1860 when a school of nursing was established by Florence Nightingale in connection with St. Thomas' Hospital in London.

While Miss Nightingale was very critical of the type of general education that most girls received in the Victorian period and did not therefore put much emphasis on academic preparation in setting up requirements for admission to nursing schools, she did put high value on education in its broader sense. Character, intelligence, and social background were especially stressed in selecting students for nursing schools. She made it quite clear that "a woman cannot be a good and intelligent nurse without being a good and intelligent woman."

In 1875, three Nightingale Schools of Nursing were established in the United States, one in New York, one in New Haven, and one in Boston, and by 1900 similar schools had been developed in a large proportion of the hospitals of this country. During these early years, however, certain fundamental changes were made in the original Nightingale plan, which very directly affected the purposes and the later development of these schools. Instead of being set up as at first under an independent committee that assumed responsibility for financing and planning for the welfare of the school and entering into contracts with hospitals for the necessary experience, the schools were taken over by the hospitals and became an integral part of their organization. In

many cases the student nurses constituted the entire working staff of the nursing department and the school was not only merged, but often completely submerged, in the service demands of the hospital.

Through the organized efforts of nurses and others, laws were established and other methods of control set up for the purpose of strengthening the educational objectives of these schools, freeing them from the economic pressure of the hospital, and building a more complete and flexible educational structure to meet the growing demands of the rapidly developing profession of nursing.

One of the greatest difficulties always was the selection of suitable candidates for nursing schools. Most people will agree that nurses should have agreeable, cultivated, and well-adjusted personalities, that they should know life and people, should be dependable and efficient, and have many other desirable social and personal qualifications. But the relation of all this to general education has not been well established in the public mind.

With the demand for better prepared nurses, the leading schools, even before 1900, began to require full high-school preparation for entrance. This requirement was not generally adopted until about thirty years later, mainly because hospitals were multiplying so rapidly that they could not secure enough student workers with high-school education. The opening up of other occupations for women was another factor of importance.

Reports and surveys on nursing education between 1923 and 1934^{*} helped to focus attention on the defects and shortages in nursing personnel and nursing service and showed the relation of these defects to the existing system of nursing education. The evidences of over-supply and unemployment during the depression years drove home some of the points made in these reports, and one of the specific results was the establishment of high-school graduation as a minimal standard for admission to registered nursing schools in practically all sections of the country.

From the beginning of the century certain changes had been going

^{*} Josephine Goldmark. *Nursing and Nursing Education in the United States*. Report of the Committee for the Study of Nursing Education. (New York: Macmillan Co., 1925)

M. A. Burgess. *Nurses, Patients, and Pocketbooks*. (Report of the Committee on the Grading of Nursing Schools. 1928) Also, *Nursing Schools of Today and Tomorrow*. (Report of the Committee on the Grading of Nursing Schools. 1934)

G. M. Weir. *Survey of Nursing Education in Canada*. 1932.

on in the organization and control of nursing schools that had a direct bearing on the question of educational prerequisites. Relations with institutions of higher education started in a small way with the preliminary part of the nursing-school program, but it was not long before a few schools were taken over completely by colleges and universities. In some cases the school of nursing became an integral part of the college or university; in others, affiliations were set up that made it possible for qualified students of the nursing school to enter for combined academic and professional programs leading to the bachelor's or master's degree.

A study made in 1936⁷ showed that sixty-six colleges and universities in this country had established such relations and that 1,832 students were registered in degree programs in which professional preparation in nursing was combined with liberal arts programs of from two to four years. Although these collegiate schools were not more than 5 percent of the total number of nursing schools in the country, the increase in the last few years showed that the trend was in this direction. A later study in 1938⁸ showed that there were about the same number of colleges and universities offering degree programs to *graduate* nurses, and that 7,995 students were registered in these programs.

The increasing interest of nurses in degree programs and in the development of collegiate schools of nursing may be interpreted as an indication that the nursing-school group generally feels the need of a broader and sounder cultural education as well as a better professional preparation. Much additional evidence could be cited in support of this statement, but there is room to quote only one source in this brief article.

The National League of Nursing Education, which represents the members of the profession who are primarily concerned with the conduct of nursing schools and educational programs for nurses, has recently issued *A Curriculum Guide for Schools of Nursing*.⁹ This was the result of three years of study by the League's Curriculum Com-

⁷ Lucile Petry. "Basic professional curricula in nursing leading to degrees." *American Journal of Nursing*, March, 1937, 287-297.

⁸ Louise Oates. "Advanced professional curricula—A survey of advanced professional curricula in nursing offered by universities and colleges in the United States." *American Journal of Nursing*, August, 1938, 909-914.

⁹ Published by the National League of Nursing Education, 50 West 50th Street, New York, 1937.

mittee in which a large number of professional nurses and educators from other groups participated. After much study and discussion it was agreed that the professional program to be recommended should be based upon from one to two years of general education of collegiate grade and that nursing schools should be urged to advance their educational requirements as rapidly as possible to this level. The main reasons given were that the young high-school graduate is not so mature intellectually, physically, or emotionally, nor so well oriented to life as she needs to be for successful adjustment to nursing and for her own best growth as an individual. The complex problems to be met in modern society, as well as the increasing demands of the nursing profession, make it necessary to strengthen general cultural preparation and broaden the social outlook of these young women before they enter the nursing school. It is generally recognized also that, if nursing schools are to reach a full professional status and to attract the type of girl needed in nursing today, some advancement in general education requirements is essential.

These recommendations apply to all nursing schools that are interested in developing sound, progressive programs of education, regardless of any connections they may have with colleges and universities. Where the nursing program is a part of a combined academic and professional program leading to a degree, the general education requirement will be more definitely prescribed in terms of the regulations of each particular institution and the special degree for which the student is preparing.

Although there is a very wide variation in degree requirements and in curriculum patterns (as shown in the two studies previously referred to), most of the institutions tend to fall into two groups. The first group requires two to four years of general education on a collegiate level as a prerequisite to a professional program of two to three years leading to a bachelor's or master's degree. In such curricula there may be little or no direct connection between the general and the professional programs. The second group admits students direct from the secondary school and provides a coordinated and, usually, a continuous program of four to five years. In some of these curricula the general and professional parts are clearly differentiated and in others they are integrated throughout with no clearcut division between preprofessional and professional. In general it is expected that the time will be fairly evenly divided between liberal arts and professional courses, but there is considerable overlapping, since the basic sciences in nursing (for

example, biology, chemistry, physics, psychology, and sociology) may be classified under either general or professional education, and the same may be said of hygiene in its various branches—mental hygiene, social hygiene, and the like. Some suggestions in regard to the selection and arrangement of courses in degree curricula will be found in Part III of the *Curriculum Guide* previously referred to; the main body of that *Guide* deals with the professional curriculum.

The Association of Collegiate Schools of Nursing is another organization concerned with the study of professional curricula, especially those leading to degrees. This association was formed in 1933 by a group of schools for the purpose of working out definite standards and policies to guide their own work and that of others who might be planning collegiate programs with a major emphasis on nursing.

Many of the questions that come to this organization from its own members and from the field generally have to do with the content and arrangement of combined programs, and particularly with the preprofessional part, since the professional curriculum does not vary greatly from that of any good nursing school. Committees are at work on the study of these questions, but no specific recommendations have been issued as yet beyond the statement included in the *Standards for Membership in the Association*.¹⁰ Briefly, these state that schools qualifying as members should give approximately equal emphasis to general and professional education in the programs leading to the bachelor's degree, and that active members should admit only such students as are prepared to take the entire degree program. Associate members sometimes carry a three-year, non-degree group of students along with the degree group.

While most professional nurses concerned with the work of collegiate schools of nursing do not question the desirability of a broad basis in general education, they are sometimes rather critical of the academic requirements set up for their students and the point of view of some academic departments with respect to 'applied courses,' sequences, and restrictions of one kind or another. Some of these regulations undoubtedly are justified, but others seem to be unnecessarily rigid. Since these problems are not peculiar to any one professional field, it would be extremely helpful, especially to professions that have

¹⁰ Copies of *Standards* and further information may be secured from the President, Isabel M. Stewart, Teachers College, Columbia University, New York City, or from the Secretary, Agnes Calinas, Skidmore College, Saratoga Springs, New York.

recently arrived in the academic world, to have an opportunity to discuss some of these questions with others who are working in different professional fields. In general, representative educators in the nursing field have been opposed to an indiscriminate mixture of vocational and general courses in the preprofessional preparation of nurses and have favored a cultural, rather than a technical, emphasis in such programs. This applies to both high-school and college preparation. At the same time, they believe that the natural and social sciences, especially, may yield *both* cultural and professional values and that college courses in science should be sufficiently sound and thorough to serve as a foundation for the professional courses that are to follow.

VIII

THE RELATION BETWEEN GENERAL EDUCATION AND EDUCATION FOR SOCIAL WORK

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I. INSTITUTIONALIZATION OF EDUCATION FOR SOCIAL WORK AND ITS RELATION TO GENERAL EDUCATION

Prior to 1898¹¹ the apprenticeship system developed by private-family and child-care agencies constituted the only method of training for the field of social work. By 1938 formal instruction in schools of social work, including both courses in theory and field work, has become the accepted method of preparation for professional practice in an expanding field of social services. The American Association of Schools of Social Work includes thirty-two "approved" schools of social work in which are enrolled 5,034 students.¹² The American Association of Social Workers, the professional organization whose requirements for membership depend upon a stated amount of professional education in these approved schools, numbers 10,432.¹³ The forty-year

¹¹ The New York School of Philanthropy (now the New York School of Social Work) was established in 1898.

¹² Enrollment Statistics; American Association of Schools of Social Work, November, 1937, Pittsburgh. (Mimeographed)

¹³ *The Compass*. (American Association of Social Workers, New York, June, 1938)

period has seen the development of professional content and the establishment of effective professional associations for advancing and maintaining standards of education and practice.

As preparation for social work first became institutionalized, a specific connection with the content of general education was retarded by a number of factors. In the first place, the persistence of the apprenticeship system and the slow recognition of professional status in the field of practice were not conducive to the development of large student bodies in the then-existing schools of social work. Thus, schools struggling to attract and hold students were not inclined to impose admission requirements that eliminated many prospective candidates. In the second place, the question whether professional education for social work should be graduate or undergraduate was as yet unanswered, and the consequent uncertainty had a profound effect in determining the extent to which the scope and content of general education could really be considered and prescribed. The difference of opinion concerning the content of professional education was no less striking than the difference of opinion concerning graduate or undergraduate preparation. Beyond the organization of the professional curriculum in terms of class work and field practice there was little agreement as to content except as to emphasis upon courses in the field of social case-work treatment. This lack of agreement concerning content was a third factor retarding the consideration of general education preparatory to professional study.

II. THE PROFESSIONAL CURRICULUM AND GRADUATE STUDY

Although professional education for social work in the undergraduate years had its strong advocates in the field for many years, the question was rather quickly and easily resolved in favor of graduate instruction. In 1921, James H. Tufts found that the majority of the forty schools then in existence required either two years of college work or else prescribed "a college education or its equivalent."¹⁴ Yet the use of the term 'equivalent' he found to be so general as to make a precise statement of admission requirements very difficult. In 1935, when Mildred Mudgett undertook to study curricula in member schools of the American Association of Schools of Social Work, she found that nineteen of the twenty-nine schools were to be completely graduate by 1936 and a number of the remaining ten contemplated the transition to

¹⁴ James H. Tufts. *Education and Training for Social Work*. (New York: The Russell Sage Foundation, 1923) P. 145.

graduate status within the near future.¹⁵ Subsequently schools applying for membership in the Association were required to be on a graduate basis, and by 1939 all member schools will have complied with the same requirements that affect applicant schools.¹⁶ Professional education for social work at the graduate level has become generally accepted, as the public demand for mature personnel, indicated by specifications set for positions in public social work, has added weight to the belief of educators in the field that both maturity and special training are necessary for adequate performance in the field of practice.

Formal study of professional curricular content was begun in 1931, and by 1934 the Association of Schools of Social Work had adopted a basic minimal curriculum for the first graduate year. This was required immediately of applicants and later of member schools.¹⁷ This basic curriculum brought substantial agreement as to content for the first year, although whether the curriculum was basic to social work or basic to the practice of social case work has remained a debatable question.

III. PROFESSIONAL EDUCATION AND GENERAL EDUCATION

With increasing clarity as to the content of professional education and with widespread agreement that it should be placed at the post-baccalaureate level, educators in the field could give more concerted attention to the content of general education preparatory to the professional schools. In spite of the lack of common understanding as to any specific relationship, the dependence of professional education for social work upon the social and biological sciences had been recognized from an early period of development in the professional schools. In 1921, Tufts found that most of the independent or quasi-independent schools recommended, in preparation for admission, courses in biology, psychology, economics, political economy, history, sociology; few, however, required such courses. He also found that of schools that were integral parts of universities and colleges, those offering professional courses in the last undergraduate year could more easily enforce requirements than could those offering courses exclusively at the graduate level.¹⁸ The ten years following brought genuine acceptance of the

¹⁵ Mildred Mudgett. Report to the Executive Committee, American Association of Schools of Social Work, 1935. (Mimeographed)

¹⁶ Constitution and By-Laws; American Association of Schools of Social Work. (Pittsburgh, 1937, mimeographed)

¹⁷ *Ibid.*

¹⁸ Tufts, *Op. cit.*, 150-151.

social sciences as basic to the professional curriculum. In 1934, Esther Brown found that only one of the twenty-nine schools omitted any reference to the social sciences in prescribing admission requirements.¹⁹ Miss Brown found the schools, however, reluctant to prescribe a specific number of credit hours. She also found considerable variation in opinion as to the relative value of the several social-science disciplines. For example, nine schools made no mention of sociology; seven no mention of psychology; another seven no mention of economics; eleven made no mention of political science; twenty-three no mention of anthropology. Eleven did not mention biology. History was not discussed specifically.²⁰

The present trend of opinion with reference to general education is best indicated by the report of the Curriculum Committee of the American Association of Schools of Social Work on prerequisites for admission to the professional schools. This report, which was adopted by the Association in May, 1937, sets forth the following recommendations:

1. That economics, political science, psychology, and sociology (including social anthropology) be recognized as the preprofessional subjects most closely related to the social-science curriculum.
2. That undergraduate colleges be advised to direct prospective students of social service into these departments.
3. That while a student in a school of social work should know something about each of these sciences, it is probably advisable for him to take not less than 12 semester-hours or 18 quarter-hours in one of them while doing a less amount of work in the others.
4. That the Association is unwilling at this time to designate any one of these four subjects as in general more important than any other.
5. That the Association recognizes the value to the student of courses in biology and English literature and composition, and that the Association takes it for granted that students will take considerable work in these subjects.²¹

Few leaders are at variance with these recommendations, although some will maintain that the present stage of development in the field

¹⁹ Esther Lucille Brown. *Social Work as a Profession*. (New York: The Russell Sage Foundation, 1935) P. 34.

²⁰ *Ibid.*, 35-36.

²¹ "Prerequisites for admission to schools of social work; A report of the Curriculum Committee of the American Association of Schools of Social Work." Reprint from *Social Service Review*, 11: 1937, 471.

makes it impracticable to exclude from the professional schools students who have been disciplined in branches of undergraduate study other than those indicated.²²

These recommendations, which assume the dependence of the subject matter of social work upon the social sciences, are amply supported by the literature.²³ The importance of these disciplines in terms of the milieu of the social-work program is less well understood. The student of social work today should be re-oriented to the social sciences as a part of his professional education. The extension of public social services, for example, has had profound effect upon the economic and social well-being of certain groups within our population. The sources of power affecting these services favorably or unfavorably, the effect of public expenditures upon the sources of taxation, and the psychological and sociological effects of the widespread acceptance of social insurance and assistance as necessary parts of the contemporary culture pattern can best be understood by students disciplined to turn to the social sciences for analysis and interpretation.

Moreover, the field of social work is changing rapidly. The early emphasis upon social case-work to the exclusion of other methods was logical in the light of the social and economic philosophy of the late nineteenth and early twentieth centuries. The present tendency in school curricula to place case-work in a more tempered relation to group work, community organization, and public welfare is a recognition of the effect of the economic and social changes of the present-day period. One way of assisting the practitioner to maintain perspective as to methods in the field is to foster developments in the professional schools that will make possible a dynamic relation between professional content and the basic subject matter of supporting disciplines.

IV. PRESENT PROGRAMS AND PRACTICES

The present emphasis upon the place of the social sciences in general education that prepares for the professional schools does not imply the narrow specification of courses in these disciplines nor does it imply the exclusion of contributions from other disciplines in the undergraduate

²² Edith Abbott. *Education for Social Work*. (Social Work Yearbook. New York: The Russell Sage Foundation, 1935) P. 119.

²³ For examples: Edith Abbott. *Social Welfare and Professional Education*. (Chicago: The University of Chicago Press, 1931)

Sydnir H. Walker. *Social Work and the Training of Social Workers*. (University of North Carolina Press, 1928)

years. Personality factors, such as insight, discretion, and perspective, important in any profession, are fundamental to the practice of social work and will remain so even when the desirable content of the professional curriculum itself is more clearly defined. In contrast with the earlier tendency to minimize other equipment in comparison with the importance of personality traits, the present tendency is to recognize that the development of personality is dependent to a great extent upon the scope and nature of the experience in the undergraduate years, when important mental and emotional growth takes place. A general education, broad in scope and high in standard, is a minimal guarantee of resources conducive to this development. It is therefore encouraging that increasing attention is being given to the quality of undergraduate instruction in institutions that contemplate the establishment of professional schools.²⁴

Among present tendencies in the field of professional education and professional practice that are especially significant from the standpoint of general education are the following:

1. The organized profession of social work as represented by the American Association of Social Workers has recognized the importance of the social and biological sciences in the undergraduate years. Membership requirements in effect at the present time specify, in addition to professional equipment, that the applicant must have completed fifteen semester hours of social and biological sciences for junior membership and twenty semester hours of social and biological sciences for senior membership. Sociology, economics, political science, psychology and psychiatry, and anthropology may be offered to meet these social-science requirements, although certain other courses are acceptable substitutes.²⁵

2. Individual professional schools have frequently developed close working relationships with liberal arts colleges within their recruiting areas. Conferences and consultations have led to some clarification of the difference between the content of general education in the social sciences and the content of the professional curriculum. Reëxamination of the professional school requirements in terms of increased or decreased facilities in these liberal arts institutions has also been attempted with profit. The enrichment of the undergraduate curriculum

²⁴ Constitution and By-Laws; American Association of Schools of Social Work. (Pittsburgh, 1937, mimeographed)

²⁵ Requirements for Membership in the American Association of Social Workers (American Association of Social Workers, New York, 1937)

and more effective guidance in course selection have often followed.

3. Through advisory service to state departments of public welfare interested in standards of training and personnel, the United States Children's Bureau and the Social Security Board have emphasized the value of sound general education as the best preparation for the professional schools and have interpreted the nature of the distinction between general and special education for the field. Much credit should be given to the work of these two agencies in preventing a mushroom growth of pseudo-professional curricula in educational institutions challenged by a new occupational outlet for students, but not too well-informed about the problems of education for social work.

4. These efforts are being supplemented by the work of the Association Schools, which, with expanded resources under a grant from the Rockefeller Foundation, can develop a liason service with national agencies, both public and private, and through field service can interpret to educational institutions the trends in the field of professional practice that will affect curriculum-planning. The present plan of research to examine the personnel needs in the public social services and to study qualitatively the existing specialized curricula should point the way to further modifications, not only in special education for the field but also in general education upon which it rests as a fundamental source of strength.

In general, professional education for the field of social work as it has been developing in the various professional schools has been open to some criticism because it is too narrowly prescribed in terms of social case-work treatment. At present, however, changes are under way in many of the schools that will broaden the curriculum to include other methods. Fortunately, education for the profession has escaped a narrow specification of prerequisites in the undergraduate years. The general acceptance of broad training in the social sciences gives ample opportunity for experimentation in the liberal arts colleges and ample opportunity for emphasis upon phases of general education that will equip the student of social work to function effectively both as a practitioner in the field and as a citizen of the community.

IX SUMMARY

The foregoing statements reveal a common concern for the general education of prospective members of the various professions. In the

introduction to this chapter (discussing the problem) there were set forth several of the objectives it is hoped a program of general education will achieve. In spite of the widespread recognition of the need for general education there is no agreement in any of the professional groups as to the precise character a program of general education should assume. In this respect those concerned with professional education are like those concerned with other branches of higher education.

Many members of the professions express the feeling that, with the extension of the period of preprofessional education, the problems of general education lie more and more in the province of the liberal arts colleges. While this is a reasonable position to take, professional bodies could promote the development of satisfactory programs of general education if they would study the needs of the members of their respective professions, and express an opinion concerning the types of programs of general education most likely to satisfy these needs. It would be a great mistake for professional groups to try to 'freeze' the liberal arts curriculum by prescribing a number of 'pre' courses, but faculties of colleges of arts and sciences would be greatly assisted in their study of the problems of general education if the professions would identify those experiences which seem to be most valuable in preparing the student for effective professional life. The fact that this problem is occupying the attention of the various professional groups, and that some are studying the relation between the professional curriculum and a program of general education, is encouraging indeed.

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CHAPTER XII

GENERAL EDUCATION AND TEACHER EDUCATION

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I. INTRODUCTION: THE SITUATION IN GENERAL

The history of teacher education in the United States, quite as much as the history of other types of professional education, has been marked by a steady increase in the customary amount of formal preparation. In the teaching field this increase has been notably rapid since about 1920. At that time less than half the teachers in American schools were holders of certificates requiring at least two years of collegiate training, and a full quarter were teaching on certificates that did not even require four years of high-school preparation.¹ By 1930-1931 this situation had already notably improved. A study made at that time revealed that three-quarters of the elementary-school teachers in the country had had at least two years of collegiate training, while sixty percent of the junior-high-school teachers and eighty-seven percent of the senior-high-school teachers had completed four years of college training, or more.² The trend thus revealed has continued, being strikingly marked by the steady transformation of state normal schools, offering a two-year collegiate course, into state teachers colleges, with a four-year course culminating in the granting of a bachelor's degree.

This development has naturally brought into particular prominence the problem of general education, at the college level, for prospective teachers. The normal schools, charged with the responsibility of preparing high-school graduates for the profession of teaching in one or two years, had necessarily to put most of their emphases on distinctly professional instruction. But the four-year teachers colleges are quite otherwise situated and have gratefully seized the opportunity to serve

¹ *National Survey of the Education of Teachers*. Vol. VI, "Summary and Interpretation," by E. S. Evenden pp. 32-33. (Washington: U. S. Government Printing Office, 1935)

² *Ibid.*, 42.

their students by continuing their general education on the collegiate level. Inevitably, in so doing they have been influenced by the theories and practices of the long-established liberal arts colleges. It is, indeed, a nice question to what extent and in what ways, if at all, general education for prospective teachers should differ from general education for all college students. The *concept* certainly implies an identity of objectives; but there are many *paths* that may lead to the goal, and some may conceivably be particularly suited to persons who are looking forward to teaching careers. At any rate, considering the divergencies of judgment already described in this volume with regard to procedures in general education, it should be expected that institutions engaged in teacher education will, like others, prove to vary as to general-education programs.

Before this point is considered further, however, it will be useful to remind the reader that the liberal arts colleges are also engaged—and notably engaged—in the education of teachers. Striking evidence of this was provided by the National Survey of the Education of Teachers, which found that nearly one-half of the beginning teachers in 1930-1931 who had spent the previous year at some institution of higher education were products of junior colleges, colleges, and universities as contrasted with normal schools and teachers colleges. It may safely be assumed that the programs of general education followed by these persons in college had rarely been planned with reference to the fact that they were prospective teachers. More likely they were influenced by some general policy that had been applied impartially to them and to their classmates who were destined for other vocations. It seems appropriate to add, at this point, that the present chapter will attend chiefly to the problem of general education for teachers as it presents itself in collegiate institutions mainly dedicated to teacher education. To be sure, the general remarks that follow will be intended to have significance for teacher education wherever carried on; but general-education programs in colleges not specifically intended for prospective teachers are treated elsewhere, and a special focus seems clearly indicated here.

It would hardly seem necessary to argue that teachers should have as extensive and as excellent a general education as any other elements in the community. They share the general needs of other individuals who are members of a society. All the general considerations set forth elsewhere in this volume apply, consequently, to them. But, in addition, the very fact that they are to become *teachers* makes it im-

portant that they should be helped to attain those ends for which general education is intended. They are, for example, destined to play a major rôle in the general education of the succeeding generation. They will, as teachers, exercise a peculiarly intensive and extensive influence on young persons while, at the same time, they will be acting as the deputies of society. For all these reasons it is particularly important that their needs, in the basic aspects of living, should be met in such ways as to promote their fullest possible realization of personal potentialities and their most effective participation in a democratic society. Such a meeting of needs is, according to a recent statement, the purpose of general education.³

Leaders in the field of teacher education have been, of course, convinced for a long time of the importance of an improved general education on the college level for teachers. The National Survey of the Education of Teachers studied the problem carefully. It concluded, after examining the records of a thousand teachers who were graduates of teachers colleges, that general education has conventionally implied study of the traditional academic studies—English, mathematics, foreign languages, science, and history—while it has neglected the social studies (other than history), the fine arts, health and physical education, and home and family relationships.⁴ A parallel study of the records of a thousand teachers who were graduates of universities and colleges supported a similar conclusion. It may be noted that half, or very nearly half, of the teachers-college group had had at least *some* collegiate instruction in the following fields: art, English, modern languages, mathematics, music, biological science, physical science, geography, history, political science, and sociology. The same could be said for the university-college group, except that art, music, geography, and political science disappear, in this case, from the list.⁵ Figures showing the average percentage of work done in ten leading fields of study of graduates of teachers colleges as compared with graduates of universities and colleges are also interesting.⁶

³ Committee on the Function of Science in General Education, Commission on Secondary School Curriculum, Progressive Education Association: *Science in General Education*. (New York: D. Appleton-Century Co., 1938) P. 23.

⁴ *National Survey of the Education of Teachers*. Vol. III. "Teacher Education Curricula," by E. U. Rugg, W. E. Peik, F. K. Foster, W. C. John, and R. B. Raup, p. 104. (Washington: U. S. Government Printing Office, 1935)

⁵ *Ibid.*, 99, 204.

⁶ *Loc. cit.*

<i>Field</i>	<i>Percentage of All Work of Graduates from</i>	
	<i>Teachers Colleges</i>	<i>Universities and Colleges</i>
Major	30.8	23.7
Education and Educational Psychology	20.0	16.1
Social Studies	11.6	12.0
English	10.3	12.4
Science	8.3	10.4
Foreign Languages	5.2	11.3
Miscellaneous	4.3	8.3
Fine Arts	4.1	2.1
Vocational Subjects	3.0	.9
Mathematics	2.4	2.8

The authors of the National Survey themselves emphasized the importance of general education for teachers, but urged a more functional approach, more direct attention to student needs—physical, social, and esthetic, as well as intellectual, more concern with contemporary problems, and more experimenting with survey courses and other integrating devices. Their summary and proposals deserve to be quoted:

Summary

In brief, general education, at least on the junior-college level, should consider the synthesis of the major fields of culture.

Professional leaders in recent years have been pleading for synthesis, integration, coördination, and articulation. How else may these be attained except by first setting up curricula for teachers, which in turn will react for similar reconstruction of general education on the secondary level?

Proposals

1. A considerable proportion, at least one-fourth of a total curriculum pattern, should consist of general non-specialized courses in the major fields of experience.

2. Where there are only minimum 3-year and 4-year preservice curricula, this work should probably be concentrated, particularly in the junior college.

3. General education should be based upon the social and individual needs of students. For one or both of these needs it would appear that such fields of experience as (a) health and science, (b) civic-social responsibilities and adjustments, (c) recreation and appreciation activities, (d) home and family relations, and (e) philosophy and values should be represented.

4. Each field should provide for sufficient time and continuity (at least a sequence of a year's work) to insure adequate grasp of survey courses in the field.

5. The dominant criterion for selection of materials to be taught with general education expected as an outcome is understanding and appreciation of present-day modes of living and problems.

6. Synthesis and articulation are to be sought; hence the orientation courses should use materials which are related to the more important problems of contemporary life but should utilize any related materials from the present systematized subjects as secondary sources of 'service' value.

7. Alternate plan. Specific orientation-survey courses should be provided in such fields as physical hygiene, mental hygiene, home and family relationships, consumer economics, government, human behavior, speech, comparative literature, and nature of world and man⁷

Attention should be particularly invited to the emphasis, in this quotation, on the junior-college level as that at which general education might well be concentrated. That this suggestion is in accordance with general contemporary trends will be obvious to any reader of this volume. It raises a problem, however, that requires some particular consideration. This is the problem of relating the special interests of any student to his general education; and it presents itself with special force to those who, like the faculties of teachers colleges, are dealing with a student population possessed of a common vocational interest. Is it educationally sound to ask and expect such students to devote their freshman and sophomore years entirely to general-education experiences, or, granting that general education should be mainly emphasized during this period, should not opportunities also be provided for experiences that will relate intimately to professional interests? There is a distinct tendency to embrace the former alternative. But many leaders in teacher education feel that this is unfortunate. They hold that students motivated by a desire to teach will feel a sense of frustration if they are required to postpone all attention to professional matters until their junior years. They argue that a program of general education will actually prove more effective if it is given a professional tinge. And, finally, they declare that elements of general education and of professional education so merge and even overlap, in the cases of prospective teachers, that it is entirely unrealistic to seek to separate them completely. The issue cannot be debated here, but it is clearly one of great importance, not only for

⁷ *Ibid.*, 107-108. See also Part II, Chap. 6, and Part III, Chap. 4, *passim*.

teachers and other professional colleges, but, in its broader aspects, for liberal arts colleges as well.

II. PROGRAMS IN GENERAL EDUCATION AT THREE TEACHERS COLLEGES

The remainder of this chapter will be devoted to a description of general education programs as they are carried on in several teachers colleges. Three institutions have been chosen for description, as representative of vital experimental activity in the field and because they differ significantly from each other in their practices. No attempt has been made to survey all the programs of general education in teachers colleges; nor is there any implication that the institutions referred to are superior to all others.

1. At Colorado State College of Education

The Colorado State College of Education, at Greeley, began as a two-year normal school in 1890.^{*} Few of its earliest students were high-school graduates. This situation gradually improved, until by 1918-1919 four years of work were offered, the first two of which, however, took on a completely collegiate character only a few years later, when graduation from the high school became a fixed requirement for admission. At about this time the practice was established of requiring all students, regardless of their field of preparation, to take a certain group of courses. At first this 'core curriculum,' as it might nowadays be called, was mainly professional in character.

A notable change occurred in 1929. By this date more and more of the students at Greeley were completing the four-year, as contrasted with the two-year, curriculum. The College had also become deeply interested in improving its practices and in establishing its status as an institution entirely justified in granting the bachelor's degree. It found itself, in short, in the same situation and moved by the same considerations that were influencing so many of its sister institutions. Its response was to establish a group of required 'outline' courses in literature, science, music, art, language, composition, history, and sociology. These were not 'introductory' courses of the usual sort, but were definitely designed to provide 'orientation' for students who could not be *expected* to carry any of the subjects further. This pattern of general education ruled from 1929 through 1934-1935, that last year

^{*}The author is especially indebted for information regarding this institution to President George W. Fraser and to Professors W. D. Armentrout and Earle U. Rugg of his staff. Statements quoted are taken directly from material provided by them.

being marked, however, by an experimental program applied to a small group of selected freshmen.

Out of this innovation grew the establishment, in the fall of 1935, of the General College at Greeley, comprising the work of the freshman and sophomore years, which must be satisfactorily completed before students may enter the Professional College. The latter, a distinct unit, constitutes an integrated three-year course leading to the bachelor's and master's degrees. It requires no further description here.

The development of the General College at Greeley has been accompanied by faculty study of assumptions and objectives and by the gradual shaping of an extended statement thereof. This statement begins as follows:

- a. The Colorado State College of Education is a technical college whose sole function is to prepare persons for teaching in the broad sense of the term ⁹
- b. This function assumes that:
 - (1) Preparation for teaching is a continuous, long-run process.
 - (2) There are four main types of abilities and knowledge required of the teacher as a novice:
 - (a) He must have a broad general education. (This assumes that much of general education is to be realized prior to preservice collegiate preparation of prospective teachers)
 - (b) He must have the minimal essentials of professional fitness.
 - (c) He must be a socially wholesome personality.
 - (d) He must have opportunities to develop his own interests and aptitudes.

The statement continues with an elaboration that begins by emphasizing the fundamental importance, for teachers, of general education, and goes on to express belief in the desirability of balanced attention to physical, social, and esthetic, as well as intellectual, needs; concern with attitudes, appreciations, and ideals, as well as knowledge and skill; promotion of power to see relationships and achieve syntheses; functionality as the major criterion in planning instruction; and

⁹ It should be noted, however, that a considerable number of students do not, upon completing the work of the General College, enter the Professional College. Some transfer to other institutions; others discontinue their higher education. Moreover, the authorities consider it their responsibility to guide students in the direction of modifying their original plans when experience indicates that they are better suited for some vocation other than teaching.—K.W.B.

encouragement of the prospective teacher's capacity to be self-directive.

In the succeeding list of objectives first place is assigned to the giving of "a balanced general education, stressing both the values of contemporary life and of the race experience, in order to enlarge the perspective of teachers in training." Related desiderata are declared to be promotion of physical and mental health, and of wholesome personality; development of potential creative talent and hobbies; raising of proficiency in fundamental skills to adequate levels; stimulation of scholarship and of such qualities as curiosity, industry, and imagination; the breeding of a respect for data, of the habit of generalization from data, and of skill in the solution of problems; promotion of the coöperative characteristics required for effective community membership; provision of opportunities whereby each student may develop skill in leading and in following; stimulation of the ability to view change sympathetically, to understand contemporary modes of living and problems, and to utilize properly the values of the race-experience; and integration of school and non-school experience.

Such a list of purposes, functions, and objectives is praiseworthy from two standpoints; first, whenever a faculty working together attempts to state the underlying purpose of its procedures in terms of what it hopes to accomplish for the student, each instructor is much more likely to relate the work in his particular area to the total program; and second, the statements themselves serve to remind each faculty member constantly of the necessity, in general education, for an emphasis upon breadth and integration of experiences.

Succinctly put, then, the present General College at Greeley represents an effort "to provide, at the college level, the best possible background of general culture, historical and contemporary." It offers two programs to students. The first, which is followed by most students, represents a core curriculum of orientation courses, and is an outgrowth of the practices mentioned earlier. The second is of a more definitely experimental character, reflecting "a newer assumption that general education varies for each individual."

The normal program consists of required orientation courses, as follows:

Freshman Year

Twelve hours of *science*, giving equal attention to physical science, biological science, and the science of human behavior.

Six hours of *art appreciation*, in which the emphasis is on actual work in

crafts, painting and drawing, and ceramics, and in one of which fields specialization is permitted in the third quarter.

Six hours of *music appreciation*, in which actual musical expression is encouraged, though not required. The lecture-discussion-listening procedure is employed and music is treated "from the viewpoint of everyday life." In the third quarter there are separate sections as: (1) songs, singers, and songwriters; (2) the music drama; (3) the relations of music and the other arts; and (4) the development of instrumental music.

Four hours of *personal hygiene*, designed to develop better health habits among the students.

Sophomore Year

Twelve hours of *social studies*. This course is planned to help the student: (1) to understand the social world in which he lives and of which he is an integral part; and (2) to be socially and objectively intelligent with respect to its changes, trends, and problems.

Twelve hours of *language and literature*, designed to acquaint students with significant selections from the literature of the world, to consider the growth of literary forms, and, especially, to focus on "the development of significant social themes that find expression in contemporary literature and application in the contemporary American scene."

These required courses take up about half of each student's time. It is reported that increasing emphasis is being placed on the integration of subject matters (a plan is afoot to experiment with the combining of work in world literature and in the social studies), on student activity (especially in the art and music courses), and on individualization of instruction. Electives may be chosen from the same fields in which the orientation courses are offered, with the presumption that each student will take two beginning sequences of courses related to his prospective major or minor fields of specialization in the Professional College. The only work in the division of education available to students in the General College is a single orientation course.

The more experimental curriculum has no prescribed courses; an individual program is worked out by each student in consultation with the director of the personnel department. Here too, however, the purpose is basically that of general education.

Greeley proposes, as indicated in a statement applying to the entire institution, both General College and Professional College:

To continue experimentation with (1) its traditional area—the professionalized preparation of teachers, (2) its present philosophy of general education, and (3) the added areas of the individual and social education of teachers.

Professional equipment, yes, to make certain that the what and how of teaching of youthful citizens rests upon the wide implications of professional study of one's chosen work. General education, yes, to guarantee informed, tolerant, thinking teachers, and thus subsequently, it is hoped, a new generation of informed, tolerant, thinking citizens. Individual and social education, yes, to produce teachers with individuality, personality, and character that will tinge formal education on all levels with James Truslow Adams's "Great Dream for America."

It will be observed that the program of general education at Greeley has changed from one of 'outline' courses in various of the usual subjects to one of 'orientation' courses in broad fields. The tendencies to further integration, to more activity, and to greater individualization are worthy of note. So is the growing concern that the curriculum should be functional. It is also interesting to find a single institution that is experimenting simultaneously with a required curriculum of courses designed to assure the general education of all, and with a plan of complete election under guidance, designed to assure the general education of each. Finally, here is an example of a teachers college that is devoting its first two years predominantly to general education, and that is permitting hardly any freshmen or sophomores to undertake courses in the field of education as such.

2. At Central State Teachers College

The Central State Teachers College at Mt. Pleasant, Michigan, has an enrollment of about a thousand students.¹⁰ These are of typical mid-western stock, and average, when tested on the American Council on Education Psychological Examination, approximately the same as other teachers-college groups. The faculty is described as "teacher-minded" and as "fairly conservative in its outlook on curriculum studies."

In 1935, however, a new experimental curriculum was introduced, "based on the functional needs of prospective teachers and wrought out through the integration of subject matter."¹¹ This curriculum is par-

¹⁰ The author is especially indebted, for information regarding this institution, to Anna B. Herrig and other members of the staff of Central State Teachers College. Statements quoted are taken directly from material provided by them.

¹¹ For a more detailed description of this curriculum and of the principles followed in its development, see *A College Curriculum Based on Functional Needs of Students* (Chicago: University of Chicago Press, 1936) by K. L. Heaton and G. R. Koopman, who, as representatives of the Michigan State Department of Public Instruction, supervised its operation during its first two years.

ticularly concerned with general education during the freshman and sophomore years. Interesting modifications of practice with respect to professional education at the senior-college level need not be described here.

The fundamental purpose of the experimental curriculum was to attempt the application, at the college level, of the functional principle that has so considerably influenced elementary and secondary education as carried forward in the progressive school systems of the country. During the first year, the new program was made available to all students who cared to elect it. However, the resulting group proved to be so heterogeneous that it seemed better, after that first year, to offer the experimental curriculum only to students who were looking forward to teaching in elementary schools. These numbered one hundred, or ten percent of the total student body.

In setting up this experimental program for a general background preliminary to vocational specialization, during the first two years of preparation for teaching, the following principles were accepted by the faculty:

1. We believe in a student-centered program rather than in a subject-matter centered program, in the psychological rather than in the logical approach; *i.e.*, in the discovery of interests as goals in a search for thought materials and for activity procedures.

2. We believe that education should emphasize growth as its ultimate goal, rather than subject-matter acquirement—which acceptance entails the necessity of opening up large opportunity for self-direction in choice of interests and in selection of modes of procedure in the search for knowledge and in the solution of problems.

3. We believe in the selection of larger centers of interest for classroom activity, those which are comparable with life situations, and which thus demand the crossing of departmental lines; we believe this type of education to be especially desirable in the training of teachers, who must find sources of material in every line and learn how to integrate these into a pattern for the solution of life situations as they arise.

4. We believe that a democratic form of social culture demands a problem-solving type of mind, capable of meeting the ever-varying demands of a modern society, rather than the receptive type of mind which the traditional program has emphasized.

5. We believe that a college student is capable of self-appraisal and self-guidance, and that he should be trained to direct his development toward the goal of his own highest potentialities as a person. Only

as he learns to direct his own growth can he learn the techniques of guiding others in their development.

On the basis of these assumptions, the experimental curriculum at Mt. Pleasant was built around what appeared to be the interests and needs of the students in all the basic aspects of living. There emerged an organization in terms of the following areas for study during the freshman and sophomore years:

1. Orientation and self-guidance in all human relations.
2. Understandings in the field of human development.
3. Understandings in the field of social relationships.
4. Understandings in the biological and physiological areas.
5. Understandings in the area of the physical sciences.
6. Understandings in the field of vocational adjustment.
7. Understandings of values in the appreciative and creative arts.

The attack upon problems in these seven areas necessitated drawing upon knowledge from various fields of learning, and interrelating this knowledge with the realities of life. Emphasis was placed upon the total growth of the individual rather than upon subject-matter divisions of the curriculum. In all of the planning an effort was made to eliminate those methods and administrative procedures which tend to warp personality, and to substitute others which would help the student to integrate his ways of behaving, in the face of the perplexities of life, into a harmonious pattern of living. Stress was always placed upon the setting up of ultimate goals of life in place of immediate goals of the classroom. So the drive for scholarship attainment and for growth was held as more desirable than the drive for marks, the former as of greater value in the development of a wholesome personality than the latter.

In carrying out their purpose, instructors in the various areas which had been established met coöperatively with students for selection of particular topics, for decision upon procedures, and for integration of elements drawn from the various subject matters in consequence of a focus upon different problems. Sources within the community and beyond were drawn upon in various ways when a need for the knowledges and the techniques of the expert became evident. All classroom activity was thus kept close to life issues. Trips to various localities were planned and carried out by the students under guidance. By letting these grow out of classroom activities and by relating them to such activities, rich experiences were gained, and much material was accumulated which threw fresh light on the problems being studied, and which became available for use in meeting future needs as they

might arise. The theories of the classroom were brought into touch with the realities as life presented them.

A prominent feature of the new program lay in the realm of personal guidance. This was never divorced from the pattern of the whole program. It was supervised by two advisory officers, one each for the freshman and the sophomore years. These officers were chairmen of the instructional staffs that were teaching classes on the appropriate level. Regular meetings of these staffs were held, for planning and guidance purposes. This procedure served to secure the participation and coöperation of instructors in carrying out the whole plan of the experiment. A practice was made of having student representation at staff meetings, and the coöperation of students in planning was always solicited.

Instruments of guidance used included freshman orientation week, testing programs, anecdotal reports, cumulative records, individual counseling, scheduled group meetings, descriptive summaries to parents. Among tests used were a psychological examination and background tests in mathematics, vocabulary, and reading. When tests indicated individual weaknesses, opportunity for remedial work was offered by instructors. The Bell Adjustment Inventory was used as a basis for personality interviews.

One phase of orientation during the freshman year dealt with the field of physical education, with recreation, and with planning for the best use of leisure time throughout life. On entering, college students were given diagnostic tests of physical fitness and ability, and the resulting findings formed the foundation for helping each individual plan that physical education program, for college and for adult life, which would best meet his physical and recreation needs. Guidance was given in planning a proper balance of time between recreation of various kinds and academic work.

Effort was made to create new interests in fields of recreation and to develop leadership in some phases of it. Wherever possible, opportunities were given to develop appreciation of, and interest in, various arts. Participation in a broad program of leisure time activities while on the campus was encouraged. Many opportunities were offered for athletic, recreational, and social activities. All these the students helped to plan and carry out. Early in the year students discussed and criticised the objectives set up for them in these areas and helped to revise them to meet their specific needs. Each student was given opportunity for discussion of his own problems, and for guidance in his planning. The program was one of coöperation rather than of supervision.

It will be observed that the Mt. Pleasant experimental program represents a relatively radical attempt at developing a pattern of instruction on the basis of students' personal-social needs. The curriculum is very broadly viewed. Guidance is stressed. Closer contacts with life outside the classroom and beyond the campus are sought. Growth and integration are major goals. The various subject matters are flexibly employed, elements from several of them are frequently brought together because of relevance to the solution of some 'real' problem. And the students are permitted—or, rather, encouraged—to share in planning the work to be carried on. It will also be noted that at Mt. Pleasant, as at Greeley, professional instruction as such is postponed until the senior-college period.

It is reported that the experiment at Mt. Pleasant has been well received by faculty and students alike, that the spirit of the student experimental group has been "progressive and creative," and that there is every disposition to give the innovation a fair trial. An interesting and important feature is the effort to evaluate results through the use of a control group chosen from students who are pursuing the traditional program of instruction. This group was selected by a matching process, using the results of psychological and achievement tests given to the entire freshman class. The following instruments were administered to members of each group, upon matriculation and in the following spring: (1) The American Council on Education Psychological Examination; (2) Coöperative Achievement Tests in spelling, literary acquaintance, contemporary affairs, American history, general science; the Inglis vocabulary test; the Minnesota Reading Comprehension test; and the Booker Reading-rate Test; (3) local tests and adaptations; (4) special tests of vocabulary, arithmetical processes, library information, critical evaluation of newspapers and magazines, clear thinking in dealing with problems, the application of the principles of science to the solution of problems, and ability to investigate and plan the solution of a social problem. Most of these tests were also administered to a senior class in order to ascertain the end-product of the traditional curriculum for purposes of comparison. No report on the results of this evaluation program was submitted from Mt. Pleasant to the author of this chapter. Presumably it is too early for reliable conclusions to be drawn since the first group of students under the experimental program is still one year short of graduation. The crucial test will come when those who have graduated under the new curriculum

can be observed meeting the problems of post-graduate life, including—but not limited to—those of their profession.

3. At New College¹²

The two colleges already described have been public institutions. New College, "the experimental and demonstration division of Teachers College, Columbia University, designed for the professional preparation of 'new' teachers," is private in character.¹³ Its present enrollment is three hundred students. The phrase, 'new teachers,' implies not only that the matriculants at New College are prospective teachers (as contrasted with the majority of students at the parent institution who are experienced teachers), but also that New College is seeking to prepare a new or distinctive type of teacher. From its establishment in 1932, the dedication of New College to radical experimentation was evident. "This new institution," the original announcement declared, "is deliberately intended to break a new way in teacher education and thus provide facilities for observation, experimentation, demonstration, and practice teaching in the field of the professional education of teachers. An endeavor will be made to discover and develop new methods in the field of teacher education. There is a definite intention of avoiding in this new education a duplication of present procedures. The curriculum will make no attempt to follow either traditional or radical patterns but will strike out with a consciousness of an urgent need of teachers to be developed and educated far beyond any of our present standards."

The curriculum of New College, as thus originally conceived, was characterized by a number of distinctive features. In accordance with the original plan, all students were expected to gain first-hand experience in 'community living' at New College Community in North Carolina. This experience served as an orientation period for new stu-

¹² Only after this chapter was in type was it announced that, for budgetary reasons, New College is to be discontinued as a separate administrative unit at the close of the academic year 1938-39, and its task of preparing beginning teachers is to be carried on in future within the general administrative framework of the parent institution, Teachers College, Columbia University. Because of New College's experimental significance, however, and because its example seems likely to prove influential in many ways, it seemed desirable to retain the account that follows, which should, however, be read with recent developments in mind.

¹³ The quotation, and others that follow (lacking specific references), are from a statement for which the author is indebted to Director Donald G. Tewksbury, of New College.

dents and as a laboratory for the discovery and analysis of those 'persistent problems' of living which formed the core of the formal curriculum.

These persistent problems are tentatively identified in a recent New College catalog as follows:¹⁴

1. Adjustment to, and coöperation with, others in the family, community, state, and other nations.
2. Adjustment to, and control of, the natural environment, looking toward its utilization for individual and social needs.
3. Achievement and maintenance of physical and mental health.
4. Creation, interpretation, and appreciation of art and beauty, (including leisure-time activities).
5. Raising the standard of living, including the provision of food, shelter, and clothing, and the satisfaction of wants beyond the essentials of existence.
6. Achievement of economic security.
7. Acquisition and transmission of the social heritage—the means by which the human race extends and transmits its heritage, including education and educational agencies, vocational choice and preparation.
8. Guiding principles and ultimate values—the development by the individual and the group of a point of view about life, a sensitivity to enduring values and a willingness to act in keeping with them.

To continue in the words of Director Tewksbury:

The program of studies in New York City was organized around these persistent problems in a 'central seminar,' which serves as an integrating center for the whole curriculum. Various phases of problems discussed in this seminar were referred to 'divisional seminars' organized around four broad areas of human knowledge; viz., social science, natural science, contemporary arts, and philosophy. In the third and fourth years the central seminar and divisional seminars gave way to the 'education seminar' and to divisional seminars in the teaching of various subject areas. Contributing to this general structure of seminars, a variety of 'service courses' and 'service units' were organized in New College itself or selected by students from offerings in Teachers College and Columbia University. New College also developed an extensive guidance program with a 'general adviser' and 'field or major adviser' for each student. 'Student teaching' activities were organized early in the curriculum and carried by students up to the point of eligibility for an 'internship.' 'Foreign study' was a

¹⁴ *Teachers College Bulletin*, 28th series, No. 3 (January, 1937), p. 12.

required experience for all students during the summer and fall of the third or fourth year. As a culminating feature of the curriculum a fifth year of internship with an examination was required for a master's degree.

It is important to understand that this program was viewed as calculated to provide both a general and a professional education, not at successive periods but simultaneously. The program was not completed, moreover, until the master's degree was awarded.

In the light of the experience of the past few years, three modifications of particular importance have recently been made in the original program:

First, the introduction of the bachelor's degree at the end of the fourth year, this degree to be regarded as an 'apprentice-teaching degree' preliminary to the internship, second, the discontinuance of the North Carolina Community as a New College project, and the instituting, for all students, of a broad summer program of 'field work' in industrial or agricultural regions, modelled on the winter field periods of Bennington and Bard Colleges; third, the reduction of the period of 'foreign study' to a length of five months, also in the summer, in order that the total cost to the student of the five-year program may approximate the cost in other colleges. A precollege planning conference for new students will be held in September in New York City.

The assumptions of the New College curriculum as worked out by the faculty on the basis of six years' experience may be stated briefly as follows:

1. The curriculum should be regarded as coextensive with life, thus including the experiences of the student both within and without the school.

2. The curriculum should be organized around the persistent problems of life as revealed in the lives of the students themselves and in contemporary society.

3. Subject matter as such should be regarded as the accumulated experience of the race in meeting these fundamental problems and should, therefore, be looked upon as a contributory, rather than as a central, element in the curriculum.

4. Students should be given adequate opportunities (through field work) for realistic contact with conditions as they exist in society today.

5. The curriculum should provide thorough training in the thought processes of analysis, generalization, evaluation, and other elements essential to the effective consideration of life problems.

6 Students should be given opportunities for participation in programs of action in order that their ideas may be tested in action and social responsibility developed.

7. Standards of achievement in relation to the curriculum as defined should not be based on courses taken, subjects passed, or time served, but be more inclusive in nature and more functional in character.

8. The curriculum should provide students with the opportunity (through foreign travel and study) of testing their ideas against the background of a contrasting civilization.

9. General cultural elements in the curriculum should not be separated from the professional elements but closely integrated throughout the period of training.

10. The final test of a professional curriculum for teachers should be the development of skills adequate for success in student-teaching activities and an internship in a practical school situation.

It will be observed that the New College curriculum is definitely functional, being built around the personal-social needs of students as these relate to, or grow out of, what are called 'persistent problems.' There is notable emphasis on the importance of a broad—and broadening—extra-mural experience, at home and abroad. The seminar method, which is emphasized, provides opportunities for individualization of instruction in accordance with plans arrived at through guidance activities. Both study of contemporary social problems and active participation in dealing with them are expected. Integration is sought, not only of personalities and of subject matters (in the ordinary sense), but also of the elements of general, and of professional, education. The latter is a particularly distinctive point, and one that makes it impossible to discuss the New College program for general education separately from its professional program.

III. SUMMARY

The illustrations offered should be sufficient to call attention to a number of pertinent facts. Teachers colleges are very much concerned with the problems of general education. In their efforts to deal with these problems they exhibit—as do other colleges—a variety of patterns. There are, however, certain discernible common trends illustrated by the institutions described: a broadening view of the curriculum; a functional emphasis on individual growth in capacity to meet personal-social needs in the various basic aspects of living; a stress

upon student activity and upon individualization of instruction under guidance; a special, though not necessarily exclusive, concern with the contemporary problems of the individual and of society; an effort to enrich experience within and beyond college walls and to relate these experiences to each other; and, in general, a seeking after integration of various sorts. While the majority of the teachers colleges probably are tending, along with the liberal arts colleges, to consider the freshman and sophomore years as constituting a period that should be pretty exclusively given over to general education, some oppose the sharp distinction between elements of general, and elements of professional, training.

With respect to future trends it is impossible to speak with any assurance. On the one hand, institutions that have so recently attained degree-granting status may prove hesitant about departing any considerable distance from the general-education procedures sanctioned by the long-established liberal arts colleges. But on the other hand, the professional interest of teachers-college faculties in educational theory and experimentation, their intimate awareness of developments in the secondary-school field and beyond, and, in many cases, their very lack of a tradition with respect to procedures in general education justify the expectation that some of the freshest and most stimulating experiments in general education may be looked for here. It is to be particularly hoped that the faculties of teachers colleges, with their superior awareness of the problems and potentialities of educational measurement, will devote special attention to the development of adequate programs for the evaluation of their practices in general education.

CHAPTER XIII

OCCUPATIONAL MOTIVATION IN GENERAL EDUCATION

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I. INTRODUCTION

Throughout the history of education in the United States educators have sought to establish harmonious relationships between what may be termed 'classical' and 'technical' education. Witness the breaking down of the classical tradition in a few Latin Grammar schools toward the close of the seventeenth century and the subsequent emergence of the academy with its more practical subjects. Today this long-sought harmony is still being pursued in the name of general education. The rôle of occupational experiences in general education is still an unknown one, but scattered throughout the country are educational institutions above the high-school level actively engaged in attempts to make occupational experience a vital part of the total educational program of the school.

Whether one or all of these institutions will ever solve the problem of the relation of occupational to general education is unpredictable, but it seems, if the solution is found, it will be in the direction of an integrative form of education conceived in terms of the present and future needs of the individual student. If, as frequently claimed, education is concerned with the individual's progressive emergence as an integrated being for whom life has direction and meaning, it must recognize that, in the normal course of an individual's life, occupational and non-occupational experiences are woven together into a total life pattern, not into two patterns. Sharp breaks of this unity both during and following formal schooling may lead to unfortunate personal maladjustment.

Theoretically, then, there seems little justification for retention of the terms 'general education' and 'occupational education,' but elimination in practice proves more difficult. They are descriptive of educational experiences that roughly may be called mental and manual. Many educators look upon general education as providing experiences that give a basis for living a life, and upon vocational education as providing experiences that give a basis for earning a living. But earning a living is part of living a life and the latter cannot be completely achieved without economic status. Consequently, when such a purpose as living a life is taken for general education, then occupational experiences must become, depending upon the personal and social needs of the individual, an integral part of general education. This needs to be recognized if education is to fulfill its purpose for all youth. There are youth who are best reached through skill experiences and others for whom intellectual experiences have the greatest appeal, but for both the end, as far as the school is concerned, is the same. This was recognized some thirty years ago by Dean Herman Schneider, of the University of Cincinnati, when he introduced coöperative education as a basic part of the total educational program. Not only has the coöperative movement made use of the reality of experience derived from occupational contacts, but with slight modification the popular field trips in the elementary school and the high school are based likewise on the same principle.

As illustrations of attempts to relate general education to occupational experiences five institutions—Pasadena Junior College, Los Angeles City College, Berea College, Antioch College, and the Rochester Athenaeum and Mechanics Institute—are discussed in this chapter. Each of these five is making a contribution to educational theory and practice in accord with current needs. Pasadena and Los Angeles are publicly supported junior colleges; Berea, Antioch, and the Rochester Athenaeum and Mechanics Institute are privately endowed; Berea and Antioch are degree-granting institutions; and the Rochester Athenaeum and Mechanics Institute grants no degrees. The chief source of information relative to all but the last institution named has been their published documents, as it was impossible to visit each of them.

II. PROGRAMS DEVELOPED TO EMPHASIZE OCCUPATIONAL MOTIVATION

1. Los Angeles and Pasadena

a. Assumptions. Despite the handicap of an aura of 'academic respectability' inherited from their collegiate step-parents, junior colleges

are compelled to recognize educational experiences long neglected by other institutions of higher learning. Since many individuals seeking admission to junior colleges are not far removed from the almost universal necessity of earning a living, it is only natural that curriculum-makers are concerned with providing educational opportunities that give the student some basis for facing such problems. The Pasadena and the Los Angeles junior colleges, which function as integral parts of public school systems, are attempting to develop programs that meet the needs, including occupational, of youth.

Both institutions proceed on the assumption that students may be classified into the two categories, preparatory and terminal. The former includes those who plan formal education beyond the junior college; the latter, those who expect to find gainful employment at the close of their junior-college work. However, it is well to recall that in Eells' study, discussed in Chapter VII, only 28 percent of preparatory students actually go on to universities. In reality, then, for most of the preparatory group the junior college is terminal rather than preparatory.

Los Angeles modifies slightly the two general classes by grouping separately those students who need general orientation prior to vocational choice and those who must remove certain high-school deficiencies in order to qualify for entrance to the university. This modification, however, does not basically change the dual classification. The work of the preparatory group finds much of its direction from the demands of the junior and the senior years of the university. This is especially in evidence at Los Angeles where courses for preparatory students have been designed that parallel the lower division work of the University of California at Los Angeles. For the preparatory group, then, the junior college merely brings the freshman and sophomore years of the university closer to home, with a resultant reduction in the cost of higher education for the student. Collegiate domination of forward-looking junior colleges, such as Los Angeles and Pasadena, is unfortunate in that it perpetuates the stifling influence of college-entrance requirements. The effect on students in junior colleges, as brought out in Chapter VII, is one of fear—fear of taking courses not applicable to university entrance. The recent action of Stanford University eliminating specific course requirements for admission to the junior year is indeed encouraging.

So long as university requirements determine the selection and organization of courses for preparatory students, the task of setting up a program is relatively easy, but the moment such influence is removed,

as in the case of terminal curricula, more imagination is required and the selection and organization of educational experiences generally become more challenging and vital. Since 'terminal' students need to be equipped with tools and skills essential to establishing and maintaining economic status very early, it is only natural that opportunity be given for some sort of vocational experiences. At the same time both Pasadena and Los Angeles recognize that living a life is more than economic stability and that consequently there is need for educational experiences beyond the horizon of occupational interest and aptitude.

b. Courses to Meet Student Needs. To meet the needs of terminal students, Los Angeles offers a two-year, semi-professional curriculum of both skill and 'vision' courses. The vision courses are, in a sense, survey courses designed to give the student an intelligent view of the world in which he lives. The skill, or occupational, courses are designed to furnish the student with a tool that will enable him to find a place in industry. It is hoped that graduates from semi-professional curricula will be oriented in some measure to the intellectual and social environment in which they will find themselves, so that they will have a means of getting a start in the economic and industrial world.

Although vision and skill courses at Los Angeles are distinct, they are offered concurrently—this in contrast to Pasadena, where survey courses precede the occupational courses. The explanation for this difference is to be found mostly in the fact that at Pasadena there is no separation of students during the first two years. During these years an attempt is made to provide a foundation for continuing general education through a series of general introductory, or survey, courses within the major fields of learning. These survey courses, discussed in detail in Chapter VII, transcend the boundaries of usual subject-matter courses and constitute the core curriculum of general education. With few exceptions they are required of all students in the eleventh and twelfth grades. In addition to the survey courses, provision is made during the first two years for several subject-matter electives to be selected by students under guidance.

The core curriculum of general education constitutes the work of the first two years; the work of the last two years is divided between university and vocational objectives. University preparatory students continue their education in the thirteenth and fourteenth grades through sequent subject-matter courses leading to their particular field of professional study or specialization on transfer to the university. The

terminal students devote virtually their entire final two years to vocational adaptation.

In spite of the excellent effort and leadership of Los Angeles and Pasadena in taking constructive steps to utilize occupation as a part of the educational pattern, they have not yet solved the problem of the rôle of occupational motivation in general education. Occupation and culture seem still to be separated, with only incidental interaction of the two. At the same time it is encouraging that two leading junior colleges, in company with many others, are attempting to meet the needs of a larger group of youth through an expansion of educational opportunity and that they are willing to abandon the traditional first two years of college. Perhaps time and experience will eventually bring about an integrated program of education in which the terms 'vocational' and 'general' will disappear. However, the solution of the problem is retarded considerably by the increasing tendency of many junior colleges to seek programs of specific occupational experiences definitely pointed toward single jobs, which may or may not be in existence at the time the student leaves school.

2. Berea College

a. Aims. Since its beginning as a district and subscription school in 1855, Berea has steadfastly held to its purpose of providing serviceable education to the young people of the mountain region of the South. It was early set forth that manual labor be included as an essential part of the program, but with the primary object of providing an opportunity for students to achieve some degree of self-support. This desire to provide for youth education that would be serviceable upon their return to their respective communities, coupled with the plan for facilitating the chance of youth to take advantage of the opportunity by providing some self-support, has resulted in making Berea a unique institution.

Berea is an excellent example of the fact that, while the ends sought for general education may be common to a number of colleges, it does not follow that there is an equally common program. It is evident that Berea has built a program in terms of the needs of individuals and of the region it is attempting to serve.

b. Organization. Started as a district school, Berea today is made up of the following academic units:

(1) *The Upper Division* comprises the junior and senior years, or pre-professional work of the College of Arts and Sciences with its affiliated training school.

(2) *The Lower Division* includes the years of general education from the eleventh grade through the fourteenth.

(3) *The Foundation-Junior High School* covers the work of the first ten grades.

These three divisions are the result of an administrative reorganization during 1937-1938. General education, as previously, forms a base for ultimate professional training. However, at Berea it is necessary to look beyond mere administrative organization of academic units to discover which is perhaps the most vital aspect of the program.

c. *The Labor Program.* According to the labor system in operation, students at Berea do practically all the work required to maintain and run the school, as well as furnishing the skilled and unskilled labor for the various industries on the campus. Each dormitory student works at least ten hours a week. Skilled workers—cooks, dressmakers, carpenters, printers, stenographers, and the like—earn a large part of their school bills. Pay is in 'labor credits' applied on school bills; no cash is given except for surplus credits when a student leaves at the end of a semester.

School labor is looked upon as a means of self-support and a clear distinction is made between the work done for pay and the work of vocational classes. One wonders about this tendency to separate the earning of a living from all other aspects of educational experience. Berea recognizes that in practice separation is difficult, if not impossible, by pointing out that, even though a student comes to the College to get an academic foundation for some profession, he will in the course of self-support learn a sustaining manual trade. He leaves school with a standard education and a lucrative trade and very often in afterlife follows the trade that he learned incidentally in school.

The labor system of Berea is in many respects an extension of the old family assignment of chores to various members of the family group. Certain chores must be done; so they are assigned to resident students who do these tasks outside regular class hours. To some degree workability of the plan seems to require that students be permanent residents of the school community, or at least that no day students live at a considerable distance from the campus. The school must be a community in itself, as well as the community's school.

That the labor plan can be applied to schools other than Berea and can meet needs of an altogether different type of student is attested by such schools as the Kent School under the direction of Father Sill. In

most such schools it is essential to recognize, however, that although the breadth of the experimental horizon is broadened, no serious attempt is made to relate these experiences to the classroom or to utilize them extensively as a basis for motivating scholastic pursuits.

d. Summary. Berea College has long been known as an institution that gives very real service in a unique social setting. To achieve its goals, Berea has added an extra-classroom labor system to the vocational and general education courses found at Los Angeles and Pasadena. In giving educational opportunities to students normally at the elementary-school and high-school level, it has extended its bounds of service beyond those of the traditional degree-granting institution. It looks upon occupation primarily as a sustaining factor in the acquisition of general education.

3. Antioch College

a. Aims. Founded by Horace Mann in 1853, Antioch College continued for sixty years after his death as a small college similar in aims and methods to others in the United States. With the election in 1920 of Arthur E. Morgan to the presidency, questions began to be raised concerning the purpose of the school and the educational experiences that were being made available to students. This questioning attitude has remained, and the program at Antioch is now one of continual experimentation to the end that there may evolve for students educational opportunities that will aid them in achieving what the institution today believes to be its basic purpose—the development, in proportion, of every element of personality.

To achieve this fundamental objective, the program undertakes “to unify the humanities and the sciences, the vocational and the cultural, the practical and the beautiful, and the good and the necessary.” These aspects of life are regarded as essential and harmonious parts of a well-proportioned whole, and not as independent of, or in conflict with, each other. In other words, it is recognized that educative experiences must transcend the unnatural mental and administrative compartments into which they are so often placed. Antioch, then, recognizes the wholeness of life, the individual as an operating unity, and attempts to make available educational experiences in terms of this concept that gives rise to the need for continuous general education.

For practical purposes it is recognized that the “pattern of human character should ideally include health; economic sense, both personal and social; vocational competence; social interest and responsibility;

a disposition to acquire and transmit the culture and wisdom of the race; and effectiveness in using all these interests and skills for solving one's own problems and those of society. It should include the habit of using both disciplined discrimination and creative imagination in ethical decisions, in critical scientific thinking, in esthetic appreciation, and in practical taste and judgment."

While the faculty of Antioch in all probability believe that this aiding of youth toward a way of life should be the goal of all general education, they feel that not all individuals can receive that aid through the program at the College. The school believes that the characteristics of human behavior may be developed to a high degree in young men and women of good native ability, and that the extent of such development is most largely determined by the desire and expectation of growth on the part of students and faculty, and by the wisdom, skill, and energy with which guidance and encouragement are provided. Attempts are made to eliminate at entrance applicants who are not seriously concerned with getting an education, as well as those who would be discouraged by the intellectual effort demanded by the College program. There is an additional selective factor that confronts Antioch, as it does all schools with a coöperative plan of education; that is, the school's obligation to the coöperative employer. To satisfy this obligation, Antioch selects responsible students of character and intelligence who will work hard and, if necessary, endure drudgery.

b. The Counseling Program. The introduction of selective factors other than scholarship makes Antioch conscious of the need for careful study of the individual, his needs and his potentialities. This has resulted in an extensive counseling service to students extending from the first contact with applicants on through the years they are students.¹ Each student has a faculty adviser who helps him plan his academic program, and who talks over with him, periodically, his interests and his college objectives. Every effort is put forth to bring about an informal relationship between counselor and student, so that the student will voluntarily seek counsel as personal problems arise. For the first two or three years students are assigned to advisers from a faculty group who have special interest in the orientation and adjustment problems of underclassmen. After a field of concentration is decided upon, students are counseled by a member of the faculty in the field selected. Such switching of counselors leads one to wonder what the effect may

¹ See A. D. Henderson. "Individualization in the Antioch Program." *The Educational Record*, 19: Supp. No. 11, January, 1938, 38-55.

be on students. It means the building up of new confidences. It also seems to mean a change from counselors interested in student problems in general to counselors primarily interested in subjects of study.

c. Program of Courses. Although each student is looked upon as an individual, there are certain required courses designed to give a common groundwork for cultural studies. In addition, each student is required to do approximately a third of his academic work in some field of concentration of his own choice. It is hoped that the general required courses and the field of concentration together assure the student's introduction to a wide range of liberal interests at the same time that he is achieving a degree of mastery in his chosen field.

Recognizing the continuous nature of general education, Antioch in 1927 instituted a program of self-directed study for students above the sophomore year. Under this plan class attendance is not required, and self-directed effort over a period of a semester is stressed rather than preparation of daily assignments. Students follow a syllabus outlining a semester's work and are required to make as much progress as possible working independently. Ample opportunity is provided, however, for conferences with instructors and for discussion groups. This placing of responsibility upon the student to seek facts and ideas must not be slighted in any program of general education. There is need to recognize that the development on the part of the student of the desire—coupled with adequate techniques—for seeking solutions to problems is actually laying a foundation for a continuing general education that stops only with death.

d. The Coöperative Work Program. Admitting the importance of "fields of concentration" and "self-directed study" at Antioch, the Antioch Plan is best known for its efforts in coöperative education. The coöperative plan provides that students have contact with the practical work of the world to about the same amount of time as they have contact with classroom activities. Unlike Los Angeles, Pasadena, and Berea, Antioch regards the part-time work experience as a liberalizing aspect of general education. No student may receive a degree without having had coöperative work experience.

For the most part, the College fills each coöperative position with two students; one works on the job while the other studies. At the end of each five- or ten-week period the two change places. Seasonal jobs may be held by a single student rather than a pair. Although the College usually secures the coöperative job for its students, individual stu-

dents may be encouraged and assisted in arranging their own employment. As far as possible, students work as regular employees and receive normal wages.

In administering this coöperative plan, the Personnel Department of the College employs the following methods:

1. The precollege and college records of each student, as well as his personality and background, are studied in order to provide work that will be a developing experience. Beginners' jobs often are necessarily routine, designed to develop habits of application and self-confidence and to provide an introduction to the exacting business world. Later work usually is related to the field the student has chosen for his life work, after tastes and capacities become more clearly defined. Under suitable conditions, students are permitted to get their own jobs, which often they can hold without alternates; here they either perform special work or serve seasonal industries.

2. The members of the Department visit employers frequently, in order to study the jobs of individual students and to counsel with supervisors regarding their progress. Also the Department aims to keep in touch with the personnel needs of its employers, so that the students selected for placement may be capable of filling those needs.

3. By maintaining contact with students, both in college and at work, the personnel directors aim to help each individual to interpret his experience and work out a career. In coöperation with faculty advisers and the academic departments, the Personnel Department works toward the integration of the scholastic and industrial program of the student.

During the academic year 1936-1937 Antioch students were placed in the vocational areas of accounting, finance, merchandising, printing, publishing, journalism, manufacturing, agriculture, forestry, transportation and communication, public service, personal service; and with such professional agencies as foundations, societies, research organizations, hospitals, libraries, museums, public and private schools, social service institutions, and summer camps. Through these occupational experiences Antioch believes that the following benefits accrue to students:

1. A sense of accomplishment.
2. An accelerated development of personality.
3. Stimulation of academic work.
4. Vocational guidance.
5. Development of financial responsibility.
6. Development of desirable standards.
7. Variety of experience.
8. Learning by doing.

c. The Student Product. As the student experiences the Antioch program of required courses, fields of concentration, self-directed study, coöperative work, and counseling service, it is hoped that desirable changes of personality and character will take place. As far as possible no essential element of human personality is left to chance development. The degree to which changes take place in all aspects of the student's personality and character determines the extent to which the Antioch program succeeds. This means that upon leaving Antioch the graduate must have achieved not only scholarship in subject matter, but also reasonable progress in the following phases of study, experience, and accomplishment:

1. He should have some acquaintance with the physical universe and with the laws that govern it, an introduction to our present knowledge of matter and energy, and a perspective of the history of the earth and its chief physical characteristics.

2. To this knowledge of the physical world he should add a substantial acquaintance with the history and characteristics of life on the earth, its development through geologic time and its present forms, relationships, structures, and behavior. This should include an understanding of the human body and individual behavior, of how man learns, and how he is governed by his emotions and other vital drives and by his intelligence. The candidate for a degree should have established reasonable health habits and good standards of efficiency in both physical and mental hygiene.

3. He should have some knowledge of the history of human problems, activities, and achievements in the fields of politics, sociology, and economics, and of the human urges they reveal. He should also have a substantial acquaintance with great literature and with man's ability to create beauty in art, literature, and music, and in his manner of daily living. He should have some acquaintance with acknowledged masterpieces in each field, he should have developed sensitiveness to beauty and discrimination of its quality, and should have some experience in its creation. He should have achieved acceptable standards of written and spoken English.

4. At graduation the student should have made definite progress toward the selection of a calling, and have gained some knowledge of the main problems and prospects in the field selected. As a rule the candidate for a degree should have reasonable mastery of the skills, knowledge, and adjustments necessary for the pursuit of his calling or for further preparation for it.

5. In addition to his academic work he should have some substantial first-hand knowledge and experience of the affairs, conditions, and work of the practical world and should be capable of some form of successful productive effort. He should be able to recognize and to appraise the factors that enter into prac-

tical accomplishment, and to see the possibilities and limitations of economic life for fulfilling human aspirations.

6. In both social and economic associations he should be able to develop and to maintain sound and progressive ethical standards. The difference between an educated and an uneducated person should be no less distinct in ethical standards and conduct than in the natural sciences or philosophy. The ethical conduct of the educated person should no more be controlled by the uncritical ethical standards of society in general than his ideas on biology and physics should be determined by uneducated opinion. In personal, family, social, and economic situations the student should have a fair degree of insight and ability to meet problems and opportunities of today and of the future.

7. Finally, he should have an acquaintance with men's efforts to interpret life and the universe in the philosophies and religions of the world; he should have under way the development of a philosophy by which to evaluate his own entire experience and bring about design and purpose for his life as a whole; and he should have made progress in achieving a way of life consistent with such a philosophy.

f. Evaluation. Antioch recognizes the innumerable problems involved in evaluating the success of its program in aiding students to find a way of life. For the achievement of some parts of the program, such as academic objectives and vocational skills, well-matured and reasonably effective methods are in use. In other aspects—for example, the development of desirable social and ethical attitudes and of an adequate philosophy of life—known methods and facilities for evaluation are immature or inadequate. Despite the difficulties of appraising these latter objectives, Antioch chooses to retain them and to persist in its efforts to increase the effectiveness of its methods and the accuracy of its appraisals. This attitude clearly reflects Antioch's experimental point of view. Its literature gives evidence of a great deal of constructive thinking about the function of higher education, about what general education should be, about the rôle that occupation plays in this general education, and about the way each part of the program gives expression to a philosophy of education.

Work is looked upon as a liberalizing experience, not as direct preparation for a particular vocation. In general, Antioch considers this experience to be supplemental to regular academic courses rather than an integral part of them. This is emphasized by the fact that there is not a close relation between the coöperative job of the student and his field of concentration. The coöperative plan is, however, an integral part of Antioch's philosophy of education. Occupational experiences

are considered in terms of their value in broadening the horizon of students by bringing them into close contact with realities of life.

4. Rochester Athenaeum and Mechanics Institute

a. Policy. The history of the Rochester Athenaeum and Mechanics Institute is one of constant seeking for a program of educational experiences based upon individual and community needs.²

The Institute has persistently followed the basic policy of seeking an integrative educational program in which occupational and cultural experiences are viewed as interrelated rather than as isolated. To carry out this policy most effectively, the Institute has for several years followed the practice of calling in eminent authorities in various fields, and retaining several as permanent consultants, who aid in making a practical and continuous study of the major problems of the Institute. The operation of such a study requires significant and usable records of all current and historic facts, including objectives, policies, plans, and achievements. The collection of such facts results in constant questioning of methods, techniques, and functions. From this basic policy of continuous searching for improvement through implemented self-criticism emerges the program of the Institute today and in the future.

Being concerned with the needs of each applicant, the Institute keeps its administrative organization flexible. Every effort is made to develop an enlarged personnel function and a curriculum plan and procedure that meet the requirements of increased individualization of school activities. With advice of outside consultants, committees of the faculty are organized and each assigned the task of studying one of the more pressing problems.

Staff studies at the Institute may be classified under four headings: (1) objectives, (2) plans—to achieve objectives, (3) operations—under the plans, (4) evaluations. The consultants aid the faculty in formulating objectives in terms meaningful in the construction of plans and their achievement, including means of evaluation. All staff studies receive their inspiration and direction from the original request of the Board to learn and satisfy student and community needs. Furthermore, occupational experiences are considered as an integral part of general education, along with the provision for continuous integration of all the student's experiences.

²For the history of the Rochester Athenaeum and Mechanics Institute, see George W. Hoke. *Blazing New Trails*. (Rochester Athenaeum and Mechanics Institute, 1937, 164 pp.)

As has been frequently pointed out in educational literature, such a program requires freedom for thinking and acting on the part of the student, and the Institute believes that this freedom must function in terms of (1) 'career goals' that express an evolving way of life, mature understanding of values worth seeking and of the means of attaining them, (2) planning to achieve goals, objectives, desired outcomes, (3) operations under the plan, and (4) self-evaluation. These four student activities are carried on cyclically with the reaction of one activity upon another so rapid at times as to make them seem simultaneous.

b. The Counseling Program. The Institute tries to stimulate the student to work out a practical plan and to follow seriously his individually planned curriculum. In doing so, it recognizes the need for mature counseling to promote self-direction. The counselors work with the student as he plans for his career and aid him in the acquisition of the techniques, and the traits—especially self-direction and self-discipline—necessary for effective self-education.

Each counselor is also the administrative head of his department and enrolls only such students as have planned careers in the field in which the department is equipped to give training. Such administrative organization eliminates many of the problems found when the guidance program is carried by a staff having no curricular responsibilities.

The Institute regards counseling as an integral part of its total program and believes that the student cannot achieve his potentialities without counseled self-direction. Counseling, accordingly, begins when the student enters the Institute—and even before that—and continues throughout his stay there. An applicant for admission confers with the departmental counselor, who discusses with him the practices in the occupational field for which that department offers training, the working conditions, the probable opportunities for employment, and the scale of remuneration. In addition, he points out the physical, mental, and educational equipment essential to the effective pursuit of various occupational experiences in general education.

No single item, in and of itself, is used as a basis for admitting students. Rather, the counselor takes into consideration, as far as possible, age, intellectual and mechanical ability, emotional maturity, previous education, and many other factors. It is the pattern of these factors and the relation of the pattern to the potential value of the course for the particular student that determine the final decision, which is arrived at mutually by the counselor and the applicant. In pre-admission counseling, considerable attention is given to the applicant's personal goals

and the manner in which he believes the Institute will help him in achieving these goals. Most applicants express an interest in a definite field of technical training, but beyond this their goals are rather vague. However, counselors are not too greatly concerned with these early statements, which they regard merely as a first step in aiding the student toward a program of self-evaluation and continuing education. This process goes on throughout the time the individual attends the Institute. In order to further self-education, no provision is made for a specific date of graduation.³

A three-year school student does not usually exhaust all the potential values of the Institute for himself during that period. A final requirement specifies that each student, in conference with his counselor, set forth his plans for continuing his education after leaving the Institute. This does not imply additional formal schooling, but rather recognition of the principle that general education is continuous with life.

After admission the counselor keeps in close touch with the progress of the student by means of detailed reports from instructors. In case the reports indicate he is not making satisfactory progress, counselor and student confer about his difficulties and the measures to be taken to remedy them. The measures taken may involve a change in attitude toward work, in study habits, or in the distribution of time. If the conferences indicate that the student needs to change his occupational goal, he either pursues a revised program of work at the Institute or withdraws from it. In the latter case the counselor helps in arranging for transfer to some other institution or in locating a position.

In addition to progress reports, counselors have at hand for each student a 'behavior journal' in which are recorded significant incidents of observed behavior. The record is based upon reports (anecdotes) from instructors⁴ and affords a cumulative body of evidence relating to the habits, ideas, and personality as they are manifested in the behavior of the student. The journal provides a quantitative and qualitative record for the continuous use of counselors in conferences with students for use in evaluating personal growth, in evaluating the utility of various services, and in furnishing credentials at the close of regular attendance for employers and for transfer to other institutions.

c. *The Instructional and Work Program.* The Institute recognizes,

³ See Walter Powell "Commencement exercises supplanted." *School and Society*, 48: 1938, 13.

⁴ See John A. Randall "The anecdotal behavior journal." *Progressive Education*, 13: 1936, 21-26.

further, that there is an instructional element in all counseling, and a counseling element in all instruction. On the instructional side, the prospective occupation of the student serves as a frame of reference. It provides a definite objective toward which he directs his efforts, a homing center for his interests, and an initial point of departure in the development of a program in accord with his needs. At present, ten departments conduct training along lines for which there is a demand for trained personnel.

Specifications, based upon a systematic survey and analysis of activities in selected occupational fields, are formulated as a guide for training in those fields. Directions and information are provided in manuals that outline progressive units of work. The student works alone or with others, depending upon the nature of the operations, and he is expected to go as far as he is able before asking for help. The help normally takes the form of questions through the answering of which the student arrives at his own interpretations. In addition to individual and group conferences, regular classes are scheduled in which the various aspects of the work are discussed.

The normal procedure, in seven of the ten departments, is for the student to alternate between four weeks in school and four weeks on a job closely related to his occupational goal. While work for pay is of material aid to students with limited finances, only those kinds of employment that have a direct bearing upon the occupational interests of the student and his program are regarded as 'coöperative.' In addition, a tour of duty on a number of different jobs within an occupational area is expected of each 'co-op' student, regardless of his financial status. Coöperative employment gives the student contact with reality. It serves to correct, enrich, and vivify his school experience, and it throws a searching light upon his fitness for the occupational area he has chosen for a career. This arrangement at present is not feasible in applied art, in general home economics, or in publishing and printing, so that students in these fields are deprived of experiences the Institute believes would be of great value.

Human contacts, closely associated with the occupational activities for which the student is training, are recognized as appropriate subjects for discussion in technical departments. In addition to these contacts a flux and flow of relations—domestic, economic, civic, and social—extend far beyond the occupational activities they permeate and motivate. These extra-occupational situations and responsibilities are dis-

cussed in an organized social-science department. This is a service department for all the technical departments. Instructors from the former are assigned to the latter, and each instructor maintains close contact with the department to which he is assigned.

Operations in the social sciences aim to give the student integrative experiences through surveys of the objective and subjective aspects of problems in psychology, economics, and life philosophy that have a practical bearing upon the individual's responsibilities in directing his own activities or in supervising the activities of others. This area also involves taking part and coöperating in various social activities.

Occupational experiences are taken as the common motivating factor for focusing attention upon some problem that, as studied, naturally leads to consideration of a steadily widening range of facts and principles. As the student sees the general application of principles, it is hoped that his education is general as well as occupational and that his motivation in pursuing his Institute work is more consciously weighted toward general education. This movement of the student toward a broader base of education comes, the Institute believes, not because of any special preference on the part of the teacher for general education, but because the needs of the student seem to be met (1) when he sees his occupational problems in the larger setting of the problems of others, the problems of social groups, and the problems of government; (2) when he formulates generalizations, establishes a habit of seeking facts, and uses these facts and generalizations in all his life situations to which they seem to apply; and (3) when he generates the attitudes of suspended judgment, tolerance, good-will, self-confidence, and self-direction that grow out of his activities in pursuit of widened interests in balanced proportion.

Experience has led the Institute to raise the question as to whether occupational motivation does not strengthen motivation in general education. Experimentation is going on with two types of elementary philosophy courses emphasizing the development of an individual philosophy and improved career planning. 'Related courses' in considerable variety have been tried. Survey courses in current literature, contemporary history, physical sciences, and the like have been offered. An hypothesis has been set up that unity of motivation and intensity of effort in activities depend in part upon the adequacy of the student's career plan and in part upon the degree of his emotional acceptance of that plan. It follows from this hypothesis that every teacher may start with an understanding of the present motivation of his student and

counsel him under the stimulation of that motivation either toward more intensive specialization of interest and activities or toward wider generalization of these.

d. Evaluation. While the Rochester Athenaeum and Mechanics Institute feels that it sees its objectives clearly, it is not sure that every aspect of its program provides the student with the best possible experiences in aiding him toward these outcomes. The Institute is very much concerned, therefore, with the problem of validating all phases of its program in the light of student and community needs as revealed by systematic surveys, conferences, and available tests. Since 1928 a program of evaluation based squarely upon institutional, departmental, and course objectives has been carried on. Institutional objectives grew out of a series of faculty and board meetings and resulted in a statement accepted by both. Each department formulated departmental and course objectives in line with the institutional objectives.

The steps in the evaluation program from this point follow closely the sequence discussed by Tyler,⁵ who, since 1928, has been directing the program of measurement and evaluation. The techniques have been reviewed so thoroughly elsewhere that there is no need for reporting them here.

The instruments of evaluation thus far developed are still somewhat inadequate to make a comprehensive evaluation of the total Institute program.⁶ This, however, does not lessen responsibility for making a constant study of the program and for developing satisfactory techniques that will throw light upon the extent to which the institution is achieving its objectives. Through such a program it may be found that objectives need to be modified in the light of the findings. The Institute is committed to a continuous evaluative approach to its problems as a basis of self-criticism and self-analysis of all its activities.

e. Summary. In the Rochester Athenaeum and Mechanics Institute one finds an institution that for years has been seeking to serve youth and the community in terms of their related needs. Occupational interests provide the base for its total program, which includes coöperative work related directly to classroom activities. However, this in-

⁵ R. W. Tyler. *Constructing Achievement Tests*. (Bureau of Educational Research, Ohio State University, 1934, 5-6)

⁶ For reports on some aspects of the program, see Mark Ellingson. "The evaluation of art accomplishment." *The American Educational Research Association, Official Report*, 1937; also "The diagnosis and treatment of simple behavior problems." *Ibid*, 1938.

terest is not considered in the narrow sense of specific trades, but rather in terms of broad occupational areas. Occupational experiences are considered as basic to general education. The Institute holds strongly to this concept. It is extremely conscious of its problems, however, and through its own continuous self-evaluation hopes slowly to arrive at solutions to some of them. It has discarded many of the commonly accepted practices of educational institutions, such as degrees, commencements, and accreditation by central agencies, in the hope that it will be increasingly free to seek ways of education compatible with the needs of youth.

The educational philosophy current at the Institute is an emerging one. It is the outcome of experience in doing, as well as insight and resources permit, the things that need to be done under the circumstances. This means that procedures are validated by fitness to meet the situation in hand, regardless of whether such procedures are new or old. Further, it implies that policies and practices, no matter how valid they may be in their proper setting, cannot be embodied *in toto* in a different setting and yield the desired results. With this reservation in mind, it is accepted as part of the responsibility of the Rochester Athenaeum and Mechanics Institute to report its experiences to the end that others may derive some slight profit from them, just as it has profited by their reported experience.

III. CONCLUSION

The considerations that move the foregoing institutions to concern themselves with occupations are varied. In a general way, and with the inescapable distortions that attend all attempts to reduce human motives to a verbal formula, the attitude toward occupational activities may be indicated somewhat as follows:

1. Los Angeles and Pasadena—as *preparatory* for those who expect to engage in some form of sustaining activities immediately after the completion of two years of junior college work.
2. Berea—as *sustaining* for students while getting an education in school, and for ex-students after leaving school.
3. Antioch—as *supplementary* to the college work, adding to that work elements regarded as essential for a well-rounded education.
4. Rochester Athenaeum and Mechanics Institute—as *basic* to the discharge of its mission, thus providing an objective center of reference and an initial point of departure for the development and administration of integrated educational programs.

The activities and experiences of these five institutions seem to indicate:

1. That there is a wide-spread and felt need, precipitated by technological advances and economic pressure, for training that will equip men and women for the effective discharge of their responsibilities in the work life and social life of the world about them.

2. That there is a growing recognition of the educative values, both practical and cultural, inherent in the acquisition and application of operating skills and understandings.

3. That there is an increasing awareness, on the part of educators, of the individual as the active agent in his educative process—his objectives motivating his activities—and not as the passive object to be moulded like clay in the hands of the potter.

4. That occupational objectives, deliberately established and openly recognized, are potent factors in motivating the activities of students.

5. That the subjective and objective world are reciprocal, each aspect permeating, vitalizing, and transforming the other.

6. That the terms 'occupational' and 'general,' 'technical' and 'liberal,' 'practical' and 'cultural' do not limit independent and autonomous areas of operation in promoting the educative process, but are to be regarded as tools facilitating communications relating to the placement of emphasis in respect to proximate and ultimate goals in educational procedures. It thus appears that, in the last analysis, debates as to relative values in these interlocking aspects of life are verbal gymnastics that tend to obscure the fact that the real mission of education is to promote the growth of competence, character, and culture in the total life pattern of the individual student.

The work of the institutions discussed in this chapter is symptomatic of the exploration and experimentation now being conducted in education, to the end that the basic and recognized functions involved in the educative process may be promoted in accord with the expanding needs of the times. It is symptomatic also of broadening conceptions relative to educational responsibilities as expanding needs reveal new duties, and of the urgent need for organizing appropriate and adequate responses to those responsibilities as complementary to established practices that have been tested and found to be good for the purposes in mind. Whatever newness there may be in these varied ventures is in the new areas of service and in the new procedures being developed so that practices may function effectively in them.

CHAPTER XIV

A CRITICAL APPRAISAL OF EXPERIMENTS IN GENERAL EDUCATION

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I. THE 'NEWNESS' OF CURRENT PROBLEMS

The first essential in a critical appraisal of experiments in general education is to bring the whole issue into clear perspective. In this imperfect world no one with ideals will be content to let matters stand as they are. Human nature at its best strives to improve everything man does; education must inevitably share that search for a better way, else it loses contact with the temper of mankind and ceases to have meaning. Change, therefore, is essential; we are concerned with the pace and the nature of change rather than with the question whether there shall be changes.

The sources of human activity are so obscure that no one knows what makes a man conservative or radical. Perhaps because we know so little about them, it is fashionable to murmur about the endocrines. The intellectual discipline that is designed to bring our impulses, either radical or conservative, into balance is history. At best this is an imperfect instrument, since it depends upon the individual interpretation of facts and upon the selection of part only for emphasis out of the vast number that press upon our attention. Nevertheless, it is the essence of the discipline of history to approach those facts as objectively as is possible for the human mind.

If one looks at educational problems without historical perspective, he is likely to start with the assumption that the current social scene is 'new,' that it reveals so many changes from the past that continuity has substantially been destroyed. Many do take this view and insist that a similar revolutionary change in education is essential. If, on the other hand, one starts with the basic postulates of the historian, that the present is a product of the past, that the number of really

cataclysmic and sudden changes are few, that the rapidity of change is often deceptively superficial, and that institutions, even though because of their nature they lag behind events, nonetheless are in constant process of modification, he will be less concerned with drastic proposals and more eager for adaptation and evolution in educational methods.

1. 'Democracy in Danger!'

One of the more commonly advanced reasons for some sort of educational revolution is the hazardous position of democracy today. In this connection it is urged that education must be remolded to save democracy. In the mouths of political leaders and educators, that form of government is continuously on the defensive and fears for its survival are daily expressed by prominent men. The schools, we are told, must save it by training the citizenry for democratic responsibilities. None of this is new. Democracy has been in double jeopardy ever since it came into existence. It is always in danger both internally and externally.

Internal tension is inherent in democracy. By its emphasis upon the individual and his inalienable rights, as against the state and its supreme power, it is dedicated to the proposition that liberty is more significant than security. Men moving freely, acting freely, speaking freely, and controlled primarily by self-discipline, will come into conflicts that directly jeopardize security. It was this to which Gilbert Chesterton referred when, in answer to the slogan, "a world safe for democracy," he retorted, "Impossible; democracy is a dangerous trade." That its dangers can be mitigated only by education has been recognized certainly since the days of Thomas Jefferson. It is no accident that as democratic theory and practice have advanced, so has the education of the common man. When we are tempted to be filled with alarm for fear education has not kept pace, it is reassuring to recall that the only two major powers which have not altered their governments by revolution during the past one hundred and fifty years are Great Britain and the United States. In the last twenty-five years of ferment resulting from the World War, these two democratic governments have been vastly the most stable. This fact provides no basis for smugness, nor any excuse to relax our efforts, but it should prevent hysteria. Education has not done all we desire, but it has been far from bootless.

We are constantly reminded that the geographical area controlled

by governments democratic in form has shrunken greatly during the past decade or two. Stated in those terms, it represents a fact, but a somewhat superficial one. Democracy has not disappeared from any area where it had long existed, where its people had been disciplined to its peculiar requirements, where free education had long been established. Several governments in South America were modeled very largely upon that of the United States; today, in substance, and to a significant degree in form, they vary widely from their prototype. Because of political and social habits, traditions, and other vital circumstances, the importation was not applicable. A living imitation is impossible; only something fixed and inanimate can permanently remain an imitation. Natural vital forces will ultimately break through an assumed mask. It is no cause for regret that governments which imitated the form of our own, but which did not and could not have the same spirit, have changed the form to match the spirit. The widely advertised defection from democracy is of the same character; in those countries that have abandoned democratic institutions there were not the long traditions and firm habits which compensate the tensions. Such failures give no intimation whatever that the basic assumptions of democracy are invalid, or that, because its forms have been discarded where its substance was never firmly established, both form and substance are likely to be discarded here.

Beside the continual peril resulting from internal tension, we are assured that democracy is in danger from without. So, indeed, it is—and has ever been. "Eternal vigilance is the price of liberty" was valid when uttered and is still true. Anyone who knows the history of Europe from Napoleon through Metternich and Bismarck and Wilhelm II to Hitler and Mussolini can be well assured that democracy is in external danger. That sensibility is the essence of the history of the Monroe Doctrine. Scepticism as to the workability of democracy, as to its effectiveness, as to its power of survival—none of this is new, and none is as vigorous as when our government was organized, or for many years thereafter. Nor can as much justification for doubts be found now as formerly.

Democracy and its hazardous position form no basis for a 'new' educational program. Its difficulties and dangers are of a piece with its problems of yesterday. Better educational foundations are certainly needed, but they can be built steadily; no complete break with old procedures is required.

2. 'Modern Complexity'

Proper perspective also throws fresh light upon 'modern complexity'—a phrase much in the public ears. The advocates of fundamental changes in education harp upon the complexity of the modern scene in contrast with the simple economy, the simple politics, the simple society of an earlier era. But simplicity and complexity are relative terms. As in the art of war attention is focused now upon attack and at other times upon defense, so in our economic life the emphasis shifts from time to time. In earlier years in America the problem of production was dominant; today men center their attention upon distribution. Neither problem is simple; neither is ever completely solved. If one cannot produce, there is no difficulty regarding distribution. When we speak of the simple economy of an earlier period, we tend to forget that those were the days when the industrial revolution and the no less significant agricultural revolution were in process. The initial impact of power machinery was more severe than that of subsequent refinements. If anyone supposes that the economy was simple at any time in the last century and a half, he has missed the whole point, not only of the economic, but also of the political history of the United States. When the commitment to universal education was made a hundred years ago, the country was just struggling out of a desperate depression, banks had gone to the wall, mortgages had been foreclosed so freely that Thomas Hart Benton told about the woes of the farmer who lost his possessions: "a lump of butter in the mouth of a dog, one gulp, one swallow, and all is gone!" There was fear of the Masons, fear of the foreigners, fear of slavery, fear of disunion. The economic and social and political problems were far from simple, even relatively simple.

Admittedly there is greater complexity today, but we have more experience, more power, more technique available for dealing with it. The boy who graduates from his general education and seeks an 'adjustment' today has a relatively simpler problem than that of the settlers brought up in England or on the continent who had to 'adjust' themselves to the New World. His problem is much simpler than that of the ship's carpenter who, in the midst of labor troubles, laid down his tools in New York City and made a new home for himself and his family in Colorado. None of these had institutional aids to effective placement, or formal means of reëducation.

Certainly the process of occupying and taming a continent, of

building communications, of establishing simultaneously the industrial and agricultural revolutions was adequately complex. It must be remembered that the settlement and conquest of this continent was the greatest movement of population in the history of the world, that it dwarfs by comparison any of the earlier great migrations of history. Furthermore, it was not merely a shift of population from one environment to another, carrying forward the same pastoral or agricultural or even industrial processes as before. This movement of population was not only extraordinarily rapid and vast in its proportions, but it also involved an even vaster and more rapid change of occupation. Forty-five years ago Frederick Jackson Turner recognized six distinct stages in the occupation of the land as the frontier advanced from section to section.¹ Thereafter came successive industrial waves; first the saw mills, later the grain mills, by and by one type of manufacturing, and then industries allied to that type, and then successive types of different kinds of manufacturing. If one can by historical imagination encompass that change, it becomes perfectly clear that references to the simple economy of our forebears are deceptive.

Social structure was never so complex as in the tribal stage, and in many respects never so simple as today. Once a man did not exist as a responsible individual. He was part of a family, a clan, or a tribe, and all his acts and responsibilities were dictated by the interdependence of its members. Today the individual stands alone, and the family has only a vestigial legal position. The development of the individual has been buttressed by the growth of the idea of justice, the concept of liberty, but all in good time, and speaking generally, in good order. We are more crowded today, but relative to means of subsistence and in many other ways, we are less interdependent than the savage.

If we are to have any perspective upon our educational problems, we cannot take the New England village of the stodgiest period of the Victorian era as a type and sigh that society is more complex today. The pioneer families going across the prairie were interdependent in their wagon trains; in their stockades against the Indians they were desperately interdependent; the men at barn raisings were interdependent. Mutual interdependence is no new phenomenon. If it be true that the Seven Years' War began in the American wilderness and

¹"The significance of the frontier in American history." *Report of the American Historical Association for 1893, 199-227.*

that the shot fired at Concord was heard round the world, it would be difficult to argue that the men of yesterday could better estimate the incidence of their actions upon others than the men of today. Certainly the child labor situation in the first impact of the industrial revolution would not support the argument that men used to see more clearly the effects of their behavior upon others.

Nor was politics ever simple. Political talk and action have always absorbed an enormous amount of attention in American life. Foreign observers like De Tocqueville and Harriet Martineau were astonished at the continuity and vigor of political discussion. It ran to an acerbity seldom experienced today. Thomas Paine writing to Washington that he was an apostate or an impostor, that the world would be puzzled to know whether he had abandoned good principles or never had any, seems incredible today. The Freneau papers represent a political level to which current discussion seldom sinks. The "revolution of 1800" and the "Jacksonian rabble" brought changes more marked than the "New Deal." The basic problems of politics are the same today as always—to induce men to use reason instead of passion, to select men of public spirit instead of political leeches for public office.

II. EDUCATIONAL ADAPTATION TO CHANGE

Changes, indeed, there are, and great ones, but they do not constitute a 'new' world. They require educational adaptations; they may permit, but do not require, a 'new' education. Against this point of view may be set the fiercely critical discussions of education in recent years. The complete failure of the schools is often proclaimed. But that likewise is no new manifestation. For over a century, at least, this violently critical temper has prevailed. George Ticknor asked in 1825, "Who has been taught anything at our colleges with the thoroughness that will enable him to go safely and directly onward to distinction in the department he has thus entered without returning to lay anew the foundations for his success?"² A distinguished New England college president reported to the corporation of his institution his judgment concerning the curriculum in vogue in 1850, saying:

[The student] cannot possibly acquire any thing more than the most general and abstract principles learned as a matter of rote, mere barren and isolated formulae, of which he cannot see the relations, and which are never associated with any actual result . . . His own

² *Remarks on Changes Lately Proposed or Adopted in Harvard University.* (Boston, 1825) p. 45.

powers, except those of acquisition, can have no play. He learns to cram for a recitation or for an examination; and when this last is over, his work is done, and he is willing to forget all that he has studied. It gave him no pleasure, it has yielded him no fruit, and he gladly dismisses it all from his thoughts for ever.³

These are only random samples of the criticisms current ninety or a hundred years ago; they have a strangely modern sound, and should persuade us that the critical spirit is not a new development.⁴ Nothing is to be gained from a false assumption that our fathers were insensitive to problems. Self-criticism and self-appraisal (now a 'self-survey' or an 'evaluation') are as old as education. Because we are unfamiliar with the ferment of the past, we are likely to be betrayed into the belief that there was none. There has always been an effort to adapt education to all real changes.

There is likewise a tendency to assume that education 'used' to have a standard pattern. It is said that the standardizing agencies have relaxed their hold in order to permit differentiation of function, to encourage experiments, to allow a more distinctive individuality. But the standardizing movement, relative to the history of American education, covers a short period; in many parts of the United States it never gained much force, and never were strong and well-balanced schools or colleges dominated by it. Its procedures were never basically educational; they were borrowed from industry and built upon an industrial analogy that was inapplicable. The whole concept of units, interchangeable parts of an education, was obviously false. But before the idea of standardization was prevalent, and even during its most virulent stages, many institutions set their own patterns. The myth of uniformity is a myth, and nothing else (as is clearly brought out in Chapter V).

The presumed uniformity of earlier colleges and their function as training grounds for ministers are hard to demonstrate in the light of the widespread atheism that was current between 1780 and 1820. At Bowdoin College, between 1802 and 1806, it is believed that "there was not one . . . who was a member of any church," and at a later date it was said of the same institution that there was not a single student who professed any religion. In Yale College "the number of professed

³ *Report to the Corporation of Brown University, on Changes in the System of Collegiate Education.* (Providence, 1850) p. 17.

⁴ For forty-six years ago, see the statement by President Harper of the University of Chicago, quoted in Chapter VIII.

Christians had dwindled to eight or ten, and at one communion, near the close of the last [18th] century, but a single undergraduate was present." Much the same was true at Princeton and other institutions. In eleven colleges in New England in 1853, less than one-third of the students admitted any religious beliefs and only about one-seventh of those in attendance were looking forward to the ministry.⁵

Eighty-eight years ago it was pointed out that "it by no means is to be taken for granted, in a county like our own, that every college is to teach the same studies, and to the same extent. It would be far better that each should consult the wants of its own locality, and do that best, for which it possessed the greatest facilities."⁶ This prescription was followed to some extent at least. Rensselaer Polytechnic Institute was established in 1824. Under Benjamin Franklin Greene, who became director in 1847, the Institute was composed of "technical schools" and a "general school" that aimed to offer "a system of general *disciplinary culture*—scientific, literary, philosophic, artistic—prior to entrance upon a 'study of any form of applied science or art'." Its courses were designed to minister to all the "powers of perception, of thought, of feeling, of expression, of action," and to aid the student to meet "the demands and circumstances of the age in which he lives."⁷ Lawrence Scientific School was organized by Harvard in 1847, Sheffield Scientific School at Yale a few years thereafter, Massachusetts Institute of Technology began instruction in 1865, Worcester Polytechnic Institute opened three years later. The present Michigan State College of Agriculture and Applied Science was established in 1857 as the Michigan Agricultural College and was followed by similar institutions in many other states; the Colorado School of Mines dates from 1870; Lowell Textile Institute was incorporated in 1895.

Not only was there functional differentiation of that type, but regional needs have long been given significant attention. Dartmouth was established on behalf of the Indians, among others, and one mid-western college was designed by its Boston sponsor for "white men, Indians, and Germans"! While community peculiarities are not to be overlooked, attention to them can easily be overdone. There are a great many institutions in the United States that carried forward in-

⁵ "Religion in colleges." *The Biblical Repertory and Princeton Review*, 31: 1859, 41-43.

⁶ See Footnote 3, p. 53.

⁷ Ray Palmer Baker. *A Chapter in American Education*. (New York: Charles Scribner's Sons, 1925) pp. 40-42.

struction in foreign languages because of the local predominance of people using that language. Many of these supposedly permanent local interests proved to be really transitory, and the institutions have had to make exceedingly difficult transitions—in which not a few have failed utterly. What is true of linguistic peculiarities and their disappearance is observable in the shift of manufacturing interests or of commercial emphasis. But even more fundamental than these is another reason for avoiding an undue insistence upon 'local demands.'

The most extraordinary characteristic of the American population has been its mobility. The rapid conquest of a continent required an enormous amount of that quality. Furthermore, this mobility has always been reflected in the choice of colleges by students. While, for reasons of convenience and economy, many young people have tended to go to neighboring institutions, a by-no-means insignificant proportion has gone considerable distances. Nothing should be done to discourage that process now. The United States is so huge that sectionalism is difficult to avoid; mobility of population and interchange of students have been forces that mitigated the danger. Educational institutions should avoid anything that will tend to make life and thought more parochial, for the provincial spirit is the opposite of the educational ideal. It is interesting that the Rhodes Scholarships attract so much attention from the public as well as from students and faculty members. They were designed to furnish one small means of cultural contact between two peoples in order to ameliorate the dangers of intense nationalism. It is infinitely more important steadily to foster the mobility of students within the United States, as an antidote to localism and sectionalism. Programs too narrowly adapted to local 'needs' and particular circumstances lose one of the most precious qualities implicit in the word 'general' as applied to education.

The union of work with study, now notable at Berea and several other institutions, finds its prototype in Oberlin of over a century ago with its union of "learning and labor"—and not Oberlin alone, but Colby College in Maine, Allegheny College in Pennsylvania, Wesleyan University in Connecticut, and many others also. These institutions were following the principles of Fellenberg, who insisted that "when a new pupil is to be received for instruction, a teacher should secure an accurate knowledge of his individual character—all its resources and defects." Another of his principles was that "the child is not to be a mere receptacle of ill-digested knowledge, and the teacher must 'en-

deavor to cultivate conscience, the understanding, and the judgment.'” So modern was Fellenberg that he “was not in favor of artificial incentives or emulation and the fear of punishment.”⁸ This remarkable movement in American education led to the organization in 1831 of the “Society for Promoting Manual Labor in Literary Institutions,” and it was fifteen years before the idea waned in influence. Some of the points made seem utterly archaic and almost incredible today, but others sound the same note as many contemporary reforms.

The number of schools that have followed a pattern of work and study is far larger than a casual observer might suspect. Even Antioch represents only the formalization and self-conscious administration of one of the most familiar aspects of college life—the boy who ‘works his way through.’ Indeed, that institution had a formal forerunner in the engineering department of the University of Cincinnati. But it would be a mistake to take account only of formal instances; even in the most conservative institutions, and in many regarded as highly ‘aristocratic,’ the amount of money earned by students is, and has long been, large; and the experience gained is even greater. The youth who earns while he learns is no new figure in American education. Most of the students always have found, and most of them now find, their own jobs. There is something to be said in behalf of the resulting stimulation of imagination and resourcefulness, as well as something in favor of the more organized efforts to secure employment. The economic experience and the social experience of labor have always been an important part of general education; the self-conscious trappings of well-devised (and sometimes well-advertised) plans are a by-product of that central fact.

When one considers the long history of the labor and of the indigence of the American college student, it is the perfect answer to the assertion that the “traditional liberal education has been aristocratic.” Colleges existed in places so new that social castes were undeveloped; frequently in American history the college has become the center of the town—and often its leading industry. In the wilderness of upper New Hampshire, in Michigan and Wisconsin, in Colorado and California, there was not much basis for the cry of “aristocratic.” Even in the oldest institutions, in urban centers in the East, the problem of indigent students has always been acute. Scholarships were always

⁸Herbert G. Lull. “The Manual Labor Movement in the United States.” *Bulletin of the University of Washington*. (University Studies, No. 8, 1914, p. 376.)

being sought—and ninety years ago the competition for students was so keen that colleges accused one another of 'buying' them with scholarship aid, a singularly modern complaint. Students fed themselves, cooking their own meals in many an attic room.

The typical student of a hundred years ago was described by a British visitor:

Look at that pale-faced, dirty-complexioned youth, flitting like the ghost of a monk from his college cell to chapel or recitation hall. His very dress is shadowy and unsubstantial. His meagre frame is hung with a limp calico gown, and his feet drag after him in slouchy slippers. Follow him to his room, where he lives his life almost unconscious of the air, earth, or sky, and you see him subside suddenly into that American abomination, a rocking-chair, or fall upon his bed, where, with his pipe and a book wearily conned, he awaits the unwelcome call of the bell to lecture. To move he is indisposed; and yet, when at rest, he seems exhausted. He does not sit, but sprawls; and he and his fellows, in their loose and fusty dress, as they listlessly lounge or drawl out their recitations, might readily pass for so many captives of a watch-house, half awakened into sobriety from a night's debauch.*

He does not sound unduly aristocratic—or intellectual.

It is true that for a brief time Harvard listed its students on a kind of social register basis, but even then we must remember that there was a bottom to the list; it was not all top—John Adams stood fourteenth in a class of twenty-four. If one scans the names of subsequent presidents of the United States who were college graduates, few came from aristocratic families, and several 'worked their way.' In the plastic social structure of America, one of the most democratic of all the instruments for advance was education. Few boys were sent to college; those came who had energy and determination. There is no evidence that this self-selection was wholly, or even primarily, upon an intellectual basis.

The expression of dislike of liberal education because it was 'aristocratic' is too often an expression of an innate anti-intellectualism—a suspicion that the higher learning and more refined esthetic taste cannot be attained by all men, hence cannot be democratic. But there is nothing whatever in democratic theory that justifies such a feeling. The 'aristocracy' of intellectualism is of a character wholly in harmony with both the theory and the practice of democracy.

* "How to keep well." *Harper's New Monthly Magazine*, 14:1856-57, 59.

One of the commonest phrases in current educational discussion refers to the 'newcomers' in general education—those who at an earlier time would not have come, those who come because employment is not available. It is intimated broadly that this 'new' group comes from an environment very unfavorable to education. But it is one of the significant distinguishing qualities of man that he can rise above his environment; he may be influenced by it, but he need not be controlled. The history of American higher education is replete with examples of those who have come from environments that sociologist and psychologist alike would regard with horror, and yet these students have done brilliantly in intellectual work—and in the development of social graces. As Thomas Mann well says, "Education is an optimistic and humane concept,"¹⁰ and schemes for taking care of these 'new' students that lack optimism are not educational.

Another implication is that the 'newcomers' have not the intellectual power of their predecessors. How this is to be proved, I do not know. Intelligence testing in the colleges came only after the World War. We do not have data for comparing the intellectual qualifications of the prewar crop with the postwar flood. But we do know that there were always lazy students and dull ones. That not all had academic aptitude is evidenced by the ratio of graduates to entrants and by the prevalence of failing grades. So far as one can see a difference, it is in the decline in self-selection. Family and friends may have urged boys forward in the 'old' days, but the schools did not assume that all should go beyond the high school. The thrust of the schools is well described in Dean Johnston's *Scholarship and Democracy*¹¹—and some of its consequences for higher education. There is evidence of less specific preparation, of less self-direction, of more school pressure, of more conformity to the current fashion of going to college, but whether the intellectual potentialities are greater or less, no one knows, nor, so far as I can see, is able to know. One of the most serious difficulties with much reform in general education is the common practice of making defeatist assumptions about the newcomers, their intellectual limitations, and the dominance of economic over spiritual and mental problems. A very significant percentage of people in the 'older' schools, so far as we can say, had no better background, no greater powers,

¹⁰ *The Coming Victory of Democracy*. (New York: Knopf, 1938) p. 25.

¹¹ J. B. Johnston. *Scholarship and Democracy*. (New York: D. Appleton-Century Co., 1937.)

and no brighter prospects than the 'newcomers.' And a materialistic concept of life defeats the essential aim of general education.

When broad generalizations about 'traditional education' conceal the facts, they distort our picture. It is not right, nor is it wise, to intimate that so far we have only failure to show for all the energy and wealth, all the thought and devotion expended upon American education. However much we may be dissatisfied, and justifiably, with the slow pace of progress, we must also remember that this despised 'traditional education' established, and in large measure vindicated, the firm faith of the American people in the efficacy of schooling as a means of education, and of education as a means of progress, intellectual and spiritual, esthetic and economic, social and political. To put the matter in the simplest and baldest language, that process, now so scorned, helped to create, and in large measure itself created, the demand which the 'new' education is to supply. Perhaps nothing is a better answer to the charge that the 'old' education was aristocratic than the broad base of public faith which it has aroused and established.

III. EXPERIMENTATION

Indubitably the watchword of education today is 'experimentation.' Many an educator would be much happier if he could prefix that word with 'scientific.' Without question, the impulse to use this commonest of all words comes from a desire to imitate and emulate the miracles of pure and applied science. Occasionally a bold spirit insists that his experiments are scientific, but only a few of the many educational experiments are or can be truly so, and for the most part these are collateral rather than central in character. This is no criticism of the experiments; it is due simply to the fact that the precise methods of science are not applicable. The student in the laboratory can never be in the 'pure' state or in the simple combinations that the scientific method requires.

Moreover, the conclusions can rarely be objective. A scientific experiment should be impersonal. Usually it is set up in order to prove or disprove some hypothesis. If the hypothesis is sharply defined, if the experiment is apposite and is carried out with flawless technique, the results will be explicit in their indication of a conclusion. In education and the social studies such objectivity is impossible. The subjects of the experiments are human beings. Their individual differences are so great and also so subtle that they defy any 'matching.'

The results can have only a statistical validity, and must be classed as opinion rather than proof. Under these circumstances an experiment too seldom fails in the eyes of its promoter or succeeds in the eyes of its critics. Furthermore, experiments that lack the rigorous controls of science do not check well with one another. An innovation often succeeds because of the enthusiasm, energy, faith, and influence of some one person. The same experiment, lacking similar personal qualities on the part of its local sponsor, may give a negative result. Not infrequently the imitative quality that so often is dominant in the spread of innovating practices leads to the adoption of the form of the experiment, while the substance escapes the mind that has not thought out the problem.

It is a very serious mistake to believe that the innovating temper is new. The American college is descended from the British universities, but it is not the same. The differences are significant and the common assertion that they represent "adaptation to environment" does not alter the fact that their distinctive characteristics are the fruit of innovating practices. The American university found its inspiration in the German universities, but it is not a copy; the differences represent an experimental temper and innovating practices. The junior college, especially in its four-year form, finds its prototype in the Gymnasium of Germany and the French lycée, which take their students beyond the stage of our high-school graduate. But the junior college is neither German nor French. Horace Mann was certainly an innovator, as was Charles William Eliot—and hundreds of others whose names are less familiarly known.

The curriculum is, in a sense, the focus of modern experimentation, but it has been the focus for generations. The famous system of free elections at Harvard is a classic example. One of the most exciting chapters in the history of a New England college occurred when the 'young radicals' took over the direction of its curriculum in the 1870's and made a place for modern science, then for economics and political and social studies, and for physical education. The place of music, once prominent, was usurped, and is on the way to restoration. Dozens of illustrations could be found to point the moral. The assertion or the assumption that the innovating spirit and the experimental temper are new is wholly misleading. Indeed, as one looks at many contemporary experiments, they seem to be putting old wine in new skins—it does not improve the wine, and it wastes a bottle!

In following current educational discussion, one might be led to believe that all high schools until recently put their whole emphasis upon preparation for college. Over fifty years ago commercial courses were offered in a number of high schools, and in 1898 a separate commercial high school was founded in Philadelphia, an example followed soon after in several other cities. Manual training high schools are as old. The St. Louis Manual Training School was opened in 1880, and within six years similar schools were organized in seven other cities, some privately and some publicly supported. The emphasis was on manual work as part of general education rather than as vocational training.

IV. SELECTION OF DATA

Current discussion lays great emphasis upon materials that are relevant to the student's needs and activities. But the relevance that seems obvious to the adult may not be visible to the youth. The World War is part of the experience of adults. In many aspects of life, it is the dominant experience; that disproportionate emphasis often blinds them to the fact that it happened before the birth of today's students. They must learn about it second-hand, just as they must learn about the Napoleonic wars, and with perhaps greater difficulty because partisanship still distorts perspective. The cold truth is that, save for a very limited range of facts, the bearing of the materials of study upon the life of the individual is a function of teaching. Relevance is not inherent so much in a fact as in its interpretation.

A moment's consideration makes it obvious that anything that ever happened anywhere at any time may have a bearing upon the habits, thoughts, and work of a student. But that relevancy to the individual student must be demonstrated through the teaching function. Proximity in time or space is no measure of relevancy or of significance. If it is true that influenza was let loose upon the modern world by events in China, an almost unnoted flood and famine there have much greater significance than more conspicuous and recent happenings close by. A study of some of the fiscal maneuvers of the Bank of England in the eighteenth century would reveal more significant facts about the stabilization funds presently employed by the treasuries of France, Britain, and the United States than can be gleaned from the meager public information about current secretive operations. The 'real' picture in historical and social studies is to be attained only through imaginative reconstructions, for radio, motion pictures, or imitative activities give only clues or aids to imagination.

The range of materials is to be determined more by the learning and skill of the teacher than by any other single factor. Native wit, a sense of humor, and innate shrewdness are all but indispensable qualities in teaching, although they are seldom mentioned, and cannot be supplied by any system of training. Of course the teacher must have a world view or a philosophy of life, but that will not, if the schools are to remain healthy, be uniform. By its very nature, a philosophy of life is the product of so many forces, ideas, experiences, and possible biological factors, that it must be utterly individual. Some years ago a committee worked for months writing a comprehensive 'philosophy of education' for a state, and then set out to have it 'adopted' by the various school systems. Success in canning beans and peas had gone to their heads; philosophy in a tin can is inevitably sterile, and a sterile philosophy is worthless. A wise and skillful teacher can make the significance of our heritage from Greece very real and exciting; the same data handled by another would seem remote and without importance.

Under these circumstances there is no pattern of materials that is demonstrably superior to any other, without considering the teacher, the individual pupil, and other local circumstances. A recent book has the engaging title, *Fashion Is Spinach*. Behind that highly modern argot is an argument of much soundness. It is probably too much to hope for the publication of a volume entitled *The Curriculum Is Spinach*, but if one were written, it might be of great service—as well as highly entertaining. Indeed, many of the tutorial projects and schemes for informal study virtually liquidate the curriculum.¹²

So far as I can see, nothing but long experience can resolve the dilemma between two fundamentally different approaches to this question. On the one hand are those who would cling to the traditional disciplines, and on the other are those who would make an analysis of the students' present or future activities and found the curriculum upon the basis of those activities. One can argue it in either direction. Thus it may be held that it is absurd, in laying out the curriculum, not to follow the life pattern of the individual, or it may be argued that any activities analysis is so superficial in its characteristics, is so gross in its deductions, is so little related to the actual processes of each individual student that it is meaningless—often, indeed, it seems as though those who would make an activities analysis are reverting to

¹² See Chapters IV and XV.

the old fallacy of the 'economic man' that the economist used to dress up for classroom purposes, but who proved to be nothing more than a dummy. Again, on the one hand it may be said that the traditional disciplines are adhered to because the teacher is too lazy to learn a different approach. (Strangely enough this argument in favor of flexibility is made chiefly by those who lay much emphasis upon training the teacher to follow a definite new pattern more rigid than the old.) On the other hand it may be argued that the disciplines have matured through many, many years, that their significant characteristics are quite individual, and that the values of those characteristics may readily be lost if they are stirred up with a great spoon and thrown into other categories which do not clearly open the way for those specific disciplinary characteristics. We have, then, upon the one hand the voice of experience and upon the other a fresh method of approach. One has succeeded measurably, though not perfectly; the other is still in the experimental stage. There seems to be no current solution except to let the two go along side by side with as little mutual recrimination as possible, depending upon our successors, and we hope our betters, to decide an issue that can be settled only upon the basis of a longer experience than we yet have.

V. SURVEY COURSES

The overemphasis upon external criteria in the selection of data finds one of its expressions in the discussion of survey courses. The words 'survey course' have become almost a slogan. Yet there is very little clarity in the expression. Every course offered in any school is, relative to other things, a survey course. A course in American history is a survey course in relation to American diplomatic history. The boundaries between 'survey' and 'specialized' are wholly indeterminate, and must remain so, inevitably. Under these circumstances it seems obvious that the label has very little significance.

Historically, the development of courses has proceeded from broader to narrower fields of teaching. Most college catalogs of seventy-five years ago showed a course or courses in "Natural Philosophy" and in "Belles Lettres." In range of area covered, those courses made most current survey courses seem very narrow indeed.

Certainly no one would suggest a return to the old subject matter; knowledge has been expanded too greatly, but that expansion makes the problem of the modern survey course exceedingly acute. It re-

quires a maturity of knowledge, a theoretical power, and a philosophic grasp that are extremely difficult to attain. Yet those are the precise qualities that lend any validity or educational relevancy to the survey ideal. A survey course, in short, is much less objective in character, vastly more personal than a specialized subject; it is an expression of opinion regarding broad values and significances. Therefore, it is impossible to standardize it, or to find any intrinsic basis for a particular segment of material, or a stated order or method of presentation. The same data, offered in the same sequence, by a standard procedure will be dull and sterile in the hands of one teacher, but vital and significant when presented by another.

One of the purposes of survey technique is to organize the student's knowledge and thought into larger and better integrated wholes. There can be no question that good organization of the material presented facilitates the organization of material learned. But the significant word is 'facilitate,' that is to say, organization greases the bearings somewhat, but it does not produce the power. The only place that organization has any ultimate significance is in the mind of the student; its significance is in the unique organization which is there established. If the material is undigested, and remains in the form it was received, it is entitled to be damned as a 'mnemonic residuum'; only if its original pattern has been woven into a fresh and individual reconstruction does it have meaning as well as substance. All too often this aspect of the matter gets inadequate consideration; with attention fixed on presentation, we tend to forget reception. For a given individual, no broadcast exists, however marvelous it may be, unless the radio is switched on. No miracle of organization can conceivably replace the receptive and vigorous mind. When we speak of courses in such terms that this basic principle is concealed, it blinds us to the central problem. This point deserves elaboration from another point of view.

The survey course, as a requirement, has one fundamental defect that only the most skillful administration can temper. It is basic to this whole discussion that individual differences must be our first consideration. There are not only differences of ability and taste and energy, but also differences in the character and amount of knowledge already acquired in school and elsewhere. The wider the field covered by a course, the more variety of knowledge the students in the course will possess about some aspects of the subject, and the more danger

there is that some part of the work will be seriously repetitious—and nothing is duller than traversing elementary facts and ideas that have already been adequately mastered. But the wider the range of the survey, the more difficult it is to distinguish which students may be excused from which part. The consequence is that the repetitious aspect of schooling which has come in for so much just criticism is accentuated rather than relieved by many survey courses. Let me use as an illustration the case of a boy who was receiving a straight A grade in a well-conducted survey course. The instructor, when asked about him, said that he was doing splendidly and that there was no need for worry. When the boy's parents were interviewed, they said that the course was about to drive him out of college. He had read all the prescribed books three years before and had read them with such care and understanding that, with only the briefest review, he was able to get the top grade. As a result he was gaining nothing new or fresh, though the course was required in order "to acquaint him with a broad field of human knowledge." He was going over a treadmill instead of upon a voyage of adventure. Undue emphasis upon the content and method of a course tends to withdraw attention from the real focus of education—the individual student.

VI. FAILURE

A good many of the procedures of some reforms in general education take their pitch from a psychology that lays too heavy an emphasis upon the abnormalities and other negative aspects of human experience. The really amazing thing is not that men have 'complexes,' 'repressions,' and other unhappy influences upon personality. The miracle is happiness. In like manner, considering that man is mortal and certain to die, the amazing fact is not the danger of injury but his capacity for recovery. Of course no one should be needlessly injured, but injury is implicit in everything we do. Seldom is a great building, or a bridge, or a tunnel constructed without the loss of life. Workmen's compensation laws and many other things evidence the fact that despite all the safety drives, all the safety devices, and all sorts of precautions, industrial production involves injury. So do games; all are dangerous, and the more hazardous they are, the more the public will pay to see them, and the more ambitious youth is to participate in them.

Yet there is a very strong tendency to try to take all the hazard

out of education. A psychology that, if dominant, would destroy industry and sport—and life itself—has persuaded us that the experience of failure (which must come frequently to every one in our imperfect world) is always a destructive force. Thus ‘flunking out’ is regarded as always a catastrophe, and even a failure in one course is considered likely to damage a tender personality. Nothing in this argument regarding failure justifies asking a student to do that for which he does not have capacity or background, asking him to continue to butt his head against a stone wall; but equally there is nothing which says that we should allow the student to pretend to incapacity or to blot out his background through inertia. Failure is a generalized term and nothing is a complete success or a complete failure. It is obvious that insofar as may be possible we should circumscribe the area of failure and enlarge the area of success, and that the more accurately we diagnose where failure begins and success ends, the more effective the educative process will be. The problem is to avoid absurd failures or the labeling of whole areas as failure when parts are spotted with success, and also to make success and failure terms that refer to achievement relative to the student’s ability and background.

Extremists go far beyond this, and in some instances ‘forbid’ a teacher to fail a student. But if all failure is destroyed, success is destroyed with it. The joys of achievement lose their zest if there is never a failure. Make it simple, and you make it dull. When I see successful middle-aged men struggling to master a golf slice, it is evidence that the human spirit loves to attain the unattainable. If those who would ‘eliminate’ failure from the vocabulary of general education succeed, the educational process will be utterly destroyed. Men talk of schools as preparation for ‘real life,’ and talk at the same moment of eliminating from the school one of life’s commonest experiences.

The student gains knowledge and wisdom, or he gains nothing at all. To pretend that he has made a substantial achievement when he has made none does him vastly more serious injury than to call him a failure. A certain type of magazine is full of advertisements promising quick and easy results—“Learn to play a saxophone in six easy lessons; be the life of the party;” “Be a writer; rapid and easy method of learning; no books.” The ‘quick and easy’ promise is always the mark of the educational charlatan. Schools that deny failure are being

drawn unconsciously into the same fraud. Writing with lucidity and force requires long practice and great effort, yet one of the most conspicuous features of some reforms in general education is the absence of emphasis upon writing. Essays, theses, papers are reduced to a minimum; even the examination, perhaps the best index of a student's capacity to write rapidly with clarity and precision, has wholly given way to the objective type, which leaves little room for the expression of ideas in a distinctly original way.

There is no painless or safe method of acquiring knowledge, and the pursuit of wisdom is even more arduous and hazardous. We encourage boys to swim, knowing some will drown; we urge them into strenuous body-contact games knowing that pain is certain; we set them to contests where none can win unless others lose. Why then make education unreal by denouncing failure? Must the school be the one place between the cradle and the grave where such an utterly unreal point of view finds expression? The coach tells the boy to get into the game and 'take it;' the teacher insists he should not have to 'take it' in the intellectual game. Is it any wonder, human nature being what it is, that the boy prefers the philosophy of the coach? He may suffer, but he may win. And if he loses, he may win next time. Strangely enough, this is denounced as 'success psychology'—as though triumph over obstacles were a bad thing. Success interpreted only in economic terms, or in terms of power over men, is unworthy, but success defined as mastery of one's own fate is the secret of an adult life of the mind and spirit.

Of course failure may bring disaster. Some will never recover from the psychological injury incident to failures; but others, indeed many more, will learn to prefer success, and make the effort to attain it. Softness and the educative process are antithetical. Learning involves the exercise of the will, and that is always a painful process. However, the pain can be mitigated by habit, for as Thorndike remarks, the "satisfactions from learning will have residues"—and in time the residues will be a treasury of pleasure.

VII. GUIDANCE

One of the best words associated with the new emphases in general education is 'guidance.' It represents a genuine effort to sort the individual out of the mass and deal with him effectively. Needless to say, that is not a new ideal. It was upon the foundation of a knowledge of

the student that the college was built in New England—and not only in New England, but also in new areas into which the college marched with the population. Many college catalogs used to suggest to the parents that they send the money which their children were to spend to the college. It would then be given to some professor who would administer it carefully in order that it might not be wasted and in order that he might inculcate habits of thrift and economy in the student. Under those circumstances the professor knew an enormous amount about the student—his economic background, his tastes, his methods of business, and many other aspects of his daily life that even the most elaborate guidance programs now largely neglect.

Another of the best words in common use as a substitute for the word 'guidance' is 'counseling'; it is an extremely valuable word because it lays emphasis upon the aspects of judgment and opinion. If one goes back to first principles, it is perfectly obvious that knowledge regarding the student is fundamental to all teaching. Indeed, it has always been a central aspect of teaching. Plato could have told a great deal about the differences among the young men in the grove; and we may be well assured that Jesus would never have confused the characteristics of Judas with those of Peter.

The significant alteration today is not that general education is more alive to the necessity for knowing the student as an individual. The changes are two: first, there is the magnitude of the problem because of the size of our project; second, the techniques and vocabulary are new. Many of these techniques are exceedingly valuable—provided they are not made positively dangerous by being supposed an adequate substitute for wisdom. A cumulative record, based on tests, measurements, judgments, opinions, and narrative, elaborately set forth with graphs, is a fine instrument, but it cannot replace insight, sympathy, experience, or a dozen other qualities that great teachers have always possessed.

As for the new vocabulary, it might well be less pretentious, for with all our progress, human personality remains too subtle for genuine scientific analysis; and if words conceal that fact, they mislead us. Guidance means that we point a way. We cannot know whether it is the right way, for we cannot know all the circumstances of the student, and we cannot foresee the future. Unpredictable developments within the student's own body, mind, and spirit, and unforeseen events, influential or decisive, make guidance an expression of human opinion

rather than a scientific matter. No two cases are just alike; no standard technique is possible. The lowest forms of life defy us, for we cannot tell whether the wind, the rain, and the sun will mature the wheat; if all nature conspires to grow it, lack of knowledge or industry on the part of the farmer may destroy it; when it is grown, the markets of the world may yield him profit or loss. No system of planned economy has ever taken care of all those factors; yet that is all a very simple matter compared with directing the life of a single individual.

The philosophic justification of education is involved in this problem. Among all the billions who have inhabited the earth through all the ages, no two have ever been alike, physically, mentally, or spiritually—much less in all three respects. Nothing we can do will change that in the future, nor should we attempt it if it were possible. This ought to remind us that *guidance should never be so bold as to seek to condition the political theory, the economic philosophy, or the social point of view of individual students*. To seek to shape the students in one mold, social, political, economic, religious, intellectual, or cultural, is to defy education itself, whose goal is individuality, never conformity. The goal is the highest development of the individual in all his aspects. That is best not only for him, but also for society—and for democracy, which is simply the social and political embodiment of that ideal.

The study of literature, of history—of all the heritage of the past—will go far to insure cultural continuity; it is not desirable that the forms of political control should remain static, because democracy is a dynamic ideal. Ever since Aristotle crystallized a great truth in the phrase, “man is a social [political] animal,” it has been clear that individual development is conditioned by that fact. Normal self-development, therefore, is never antisocial; it finds freest outlet as reason triumphs over prejudice, tolerance over dogmatism, and appreciation over antipathy. Those are the habits of mind and feeling that make society coherent and democracy possible. The student of today and his fellows will produce their own future; it is not for us to dominate the future of human destiny by fastening upon youth our own limitations, any more than we should plan an economy or a society for a future that we have no moral right to control. Wisdom will not die with us. Our obligations are to avoid squandering resources, natural or developed, material or human, and to give youth a chance to grow in the best environment possible, trusting them to solve problems as they mature.

Efforts to control the future through the educative process are particularly disastrous if they are based upon a defensive temper. There can be no question that Ortega y Gasset was right in his description of the psychology of our time, an epoch "superior to other times, [but] inferior to itself;" an age "strong, indeed, and at the same time uncertain of its destiny; proud of its strength and at the same time fearing it."¹³ We are bitterly aware of the futility of war as a means of settling any sort of problem, even the most simple; indeed, we are conscious that it creates new problems more serious than the old. Painfully conscious that we have not found any road to peace, the world marches on in terror—toward war. Similarly, we are dissatisfied with our political and economic and social progress, and speak in terms of fear. This is a negative force, and no program predicated upon it can hope to be constructive. If the schools undertake by formal means to 'save' democracy, they are much more likely to destroy it. The success of the Russian schools in inculcating an economic dogma, and the effort of the German schools to control political opinion are not proper models for a democracy, because democracy is neither invention nor dogma. It is an effort, as Thomas Mann expressed it, "inspired above every other with the feeling and consciousness of the dignity of man."¹⁴ To try to 'condition' the student to one form of faith, political, economic, or religious, is to assault, rather than support, the dignity of the individual. The propagandists will capture the schools if they can; any effort to establish uniform ideals simply plays into their hands—and against the interests of the students, whose innate right it is to learn rather than to be 'conditioned.'

VIII. CONCLUSION

Students follow no standard pattern. We know that is true physically as to their height and weight and all other qualities. It is true as to diet, because some are allergic to foods that are wholesome and necessary for others. It is true socially. It is true intellectually. And if all these things are true, it seems obvious that there can be no authentic pattern of general education applicable to all men everywhere in the United States, either as to the length of time to be spent, as to the methods to be employed, or as to the content thereof. These things have never been standard, though it is easy to neglect significant dif-

¹³ *The Revolt of the Masses*. (New York: Norton and Co., Inc., 1932) p. 40.

¹⁴ *Op. cit.*, p. 19.

ferences and pretend that they have been. If we are to retain an educative process, they never can be standardized.

Therefore we should welcome every experiment so long as it is sincere and intelligent. We must ask of those who experiment that they should do it without being pretentious, that they should not be eager to advertise it until its results are demonstrable to others, that it should not be unduly imitative of scientific technique, that it should be carried forward with enthusiasm and energy. Often the change will be more valuable in keeping the teacher and the student alert, in bringing a sense of freshness, in breaking up routines that have fallen into ruts, rather than in any direct or immediate effect upon the theory of general education. After all, routine is only the settled and formal expression of an idea; by and by the idea is forgotten and the techniques claim a validity of their own. Then the routine must be broken in order to rediscover the idea and the ideal. Much educational change consists in the rediscovery of old truths by seeking them along new paths.

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SECTION III
MATERIALS FOR GENERAL EDUCATION

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CHAPTER XV

THE CHOICE OF MATERIALS FOR ADVANCING THE AIMS AND FUNCTIONS OF GENERAL EDUCATION

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I. INTRODUCTION

The most vital problems of educational policy relate to the development of instructional materials and the arrangement of desirable learning and teaching situations. In making intelligent decisions on such matters, we find it necessary to derive tangible aims from the considerations already presented, and particularly from the conception of the democratic ideal as stated in Chapter I. In so doing, answers must be sought to two broad and closely interrelated questions: First, what are the situations, problems, and interests most likely to challenge the individual in the course of his living in a democratic society? Second, with what capacities must he be equipped if he is to deal adequately with them? Answers to these questions, we believe, will result in a sufficiently definite schematic picture of what general education should accomplish to indicate the desirable types of materials and of learning and teaching situations.

II. TYPES OF LEARNING AND TEACHING SITUATIONS

1. Situations and Problems of the Individual

The first question to be considered is: *What are the situations and problems with which the individual must deal in the course of his living in a democratic society?*

¹Part of this chapter is adapted with changes from a report prepared by the following committee of professors in Teachers College: Dr. Karl W. Bigelow, Professor of Education (Social Science); Dr. Helen Judy-Bond, Professor of Household Arts; Dr. Lennox B. Grey, Associate Professor of English; Dr. James L. Mursell, Associate Professor of Education (Psychology of the Arts); and Dr. Samuel Ralph Powers, Professor of Natural Sciences and Administrative Officer of the Bureau of Educational Research in Science (Chairman).

The portions of the chapter that Messrs. Hoban, Bryson, and others primarily contributed are indicated in the text that follows

There are at least seven types of situations that may be listed by an analysis of the answers to this question.²

a. Personal Contacts. The individual must deal with situations and problems arising out of his intimate personal contacts. Typical among these are the problems of the family and home.

Modern industrialism has brought about certain far-reaching changes in the home, particularly with respect to its economic and protective functions, regarding which there is wide agreement among experts. Young people today contribute less to the income of the family than even a decade ago. With the extension of education and the delayed opportunity for employment, they are economically dependent on their families for a longer period of time. Authoritarian régimes abroad have tended to take advantage of these and related circumstances, and to impair the significance of home life by removing young people from parental influence for the sake of adjusting them to the requirements of the state. From the standpoint of the democratic ideal, this is highly undesirable.

As a matter of fact, the very change in economic and protective functions serves to emphasize the 'personality functions' that are of great importance in a democracy. Modern educational practice might indicate to some that the school has usurped the educational function of the home. Closer investigation will reveal, however, that education depends on greater coöperation from the home in the development of young people than ever before. The home continues to offer unique opportunities for certain modes of experience and action, notably those involving affectionate concern for the well-being of others—for the sharing of interests, for the development of sympathies and understandings, and for mutual, moral, and psychological support and encouragement. These are so valuable to the individual and so favorable to the development of his own unique contribution to social living that the possibilities of the home have been thrown into higher relief. Accordingly, we must select from the sum-total of cultural resources those elements most pertinent to such familial and other intimate behavior patterns as are now emerging into even greater prominence, and make them available through the school.

² The list that follows is offered as a careful, comprehensive analysis and as an illustration of the manner in which human interests and needs may be approached through education. It is by no means the only analysis that can be made, and it is certainly not intended that the headings in the list be taken as suggestions of titles for courses

b. *The Economic System.* The individual must deal with problems and situations arising out of his relations with the economic system.

The general effect of industrialism upon the economic life of the individual may be considered under two heads: his status as producer, and his status as consumer. As producer he has, in a vast number of instances, been relegated to an increasingly narrow specialization, with a corresponding loss of the psychological satisfactions that come from a sense of personal participation in significant work, a greater vocational precariousness, and a lack of awareness of his true relation to the system as a whole. As a consumer he is confronted by a more and more bewildering array of possible choices, and by a multitude of appeals whose validity he cannot estimate. The resulting confusion indicates what is necessary if the individual's economic adjustment is to be made effective in the democratic sense, and if he is to be equipped to deal with future economic changes at least as rapid and extensive as those of the immediate past. He must seek work-patterns in which he can recapture at once a sense of shared activity and of personal responsibility; he must be able to see his task in relation to the economic-financial structure as a whole; he must be able to resist the narrowing effects of vocational specialization, so that he can retain his flexibility late in life; he must have an understanding of proper standards of consumption; and he must have an intelligent basis of choice in matters of consumption.

c. *The Governmental System.* The individual must deal with situations and problems arising out of his relation to the governmental system.

The democratic ideal implies the active, informed, and intelligent participation of every individual in matters of government, including those of the local community, the nation, and the international system. The state is regarded not as an end in itself, but as the servant of its coöperating members, and of the human family as a whole.

We frequently hear the comment that the democratic political machinery very imperfectly realizes the ideal of democracy. Putting it in other terms, this simply means that our state-wide behavior is not democratically effective to the extent we could wish. And here again we have a major educational task. How should a democratic state function? What are the chief current defects in its functioning? What remedies and constructive alternatives are contemplated? We must put the whole array of our cultural resources under tribute for materials that can throw light upon such questions. The relation of the conven-

tional curriculum to the real issues of political life and adjustment in democratic communities is analogous to that of the conventional course in biology to the personal problems of sex. The whole topic is in effect omitted, and the learner is left to pick up from casual contacts the insights that will really shape his conduct. Among the vital topics would be: how the laws are in fact made; how they are administered; how the government is financed; how the nation conducts its foreign relations. And if they are to be of any service at all in enabling the individual to function democratically, and to be in his own measure a participant in the re-creation of modes of politico-social action, they must be treated in relation to his own immediate political experiences, and realistically rather than romantically.

d. *The Educational System.* He must deal with situations and problems arising out of his relation to the instrumentalities of education, including the schools themselves, and such less formal, but extremely important agencies as the press, the radio, and the motion picture.

It is recognized that in a democratic social order education discharges a function of peculiar significance. Hence it is exceedingly desirable that all persons in such a social order recognize a responsibility to coöperate actively in the solution of educational problems that are, in fact, matters of common concern. The schools cannot adequately serve the social order so long as a comprehension of their work is largely confined to those professionally engaged in it. Every member of a democratic society has numerous and intimate relations to the schools—as student, as parent, as tax-payer, as voter, and so forth. The well-being of the schools is a vital factor in the future of the social order itself, and since school policies must ultimately depend upon public support, it is highly important that an understanding of the problems involved, and a sense of personal obligation with respect to them, be developed on the widest possible scale. The so-called ‘informal’ educational agencies, in turn, exercise a profound and pervasive influence upon the social order, for good or ill. The character of that influence is, in the long run, determined largely by the attitudes taken towards them by the members of the society. Hence it becomes very important that the individual acquire discrimination and insight in his contacts with the press, the radio, the motion picture, and so forth, and come to recognize the possibilities and limitations of such agencies, their formative influence upon public opinion, and the mutual responsibility obtaining between them and the society as a whole.

e. *Health.* The individual must deal with situations and problems arising out of the need to preserve physical and mental health. This has two aspects, closely interrelated: problems pertaining to his own growth and development, and problems pertaining to society as a whole.

There is abundant evidence that damaging disturbances arise in the minds of young people because of ignorance concerning the normal functioning of their own bodies. Thus, traditionally, young people have been kept ignorant of the physical and psychological changes that occur in themselves and in others during adolescence. All this stands in the way of the development of normal and happy personal relationships. The problem is admittedly a difficult one, but may be faced more effectively as part of the comprehensive study of growth and development than as a special topic not clearly related to the rest of the individual's interests and needs.

Testimony to the interest in mental health can be found in the wide popularity of such books as *Why We Behave Like Human Beings*, *How to Win Friends and Influence People*, and *Life Begins at Forty*, and also in the great host who seek to achieve emotional anchorage by visiting astrologers, fortune-tellers, or other brands of soothsayers or diviners.

f. *Recreation.* The individual must deal with situations and problems arising out of the need for recreation.

One of the most striking tendencies in America is the enormous increase in 'spectator' sports and passive recreations generally. Our conception of the democratic ideal need not preclude such occupations, but will emphasize active participation in recreations. Fortunately this trend also is well in evidence. Our educational task is to accelerate it, and, recognizing that spectatorship will be encouraged in any event, to provide guidance here also. Accordingly, we believe that the cultural materials should be surveyed with an eye to avocational possibilities of an active type, to the emergence of more discriminating spectatorship and appreciation, and to the development of intelligent comprehension of the province of recreation. Motion picture 'shorts' on how to understand golf, rowing, sailing, swimming, and riding are advancing this trend. Other attractive possibilities for recreation in the out-of-doors include plant and animal breeding, landscape gardening, and even reforestation and other ways of reclaiming wasted lands.

g. *Newer Conceptions of Man.* The individual must deal with a wide range of problems and situations arising out of the conflict between

the newer and the older views of the nature of the world and of man.

Modern man sees the world and the universe not as fixed and immutable, but as essentially changing and virtually unbounded in time and space, while man himself is thought of as akin to the entire scheme of nature rather than as a special creation. This view, already implied in the sciences and arts of today, may be expected to dominate our culture. While we believe that, correctly interpreted, this view preserves, and indeed promotes, spiritual values, there is no question that it is in conflict with traditional opinions held precious by many persons. This conflict gives rise to numerous and often acute problems in many of the relations of life, to doubts as to the true course of personal obligation, and even leads to the destruction of highly important personal views. Hence, a major task of general education must be to lead to a sane and balanced attitude towards the newer world-view that has been emerging in human culture and to a constructive understanding of it.

2. Traits and Capacities Needed by the Individual

The second question to be considered is: *With what traits and capacities must the individual be equipped if he is to deal adequately with such situations and problems?*

Our conception of the democratic ideal requires that, in educating the individual to meet such situations and problems as have been indicated, we continually seek to secure on his part: first, the development of his own unique capacities and outlook in a social environment; second, continuing adaptation to a social order marked by more or less rapid change; and third, the ability to apply his own initiative and wisdom to the issues confronting him. Psychologically considered, the nature of such an undertaking is reasonably clear. Our task is to generate in him certain abilities. Upon these we must focus our educational policies. Considered together with the situations and problems of living that they are intended to serve, these sought-for abilities will determine both the choice and the arrangement of curricular materials, and the type of situations for learning and teaching regarded as desirable.

Eight types of abilities or traits may be listed.

a. Careful and Critical Thinking. We shall seek to develop in the individual careful and critical methods of thinking. Thinking may be regarded as a process in which a problem is recognized, relevant data are selected, and a solution is experimentally sought. As such it is by no means confined to the familiar 'intellectual discipline,' such as logic,

natural science, or mathematics, but may occur in all cultural situations. Its extreme importance for a democratic social order and for the individuals who must participate in that order needs no comment. In spite of numerous protestations, neither the curricular materials nor the learning situations commonly employed in education have been well suited to develop effective thinking. This is a radical defect our program of general education must resolutely seek to correct. We must seek materials from all fields that embody characteristic and successful ways of thinking, and intellectual technique generally, and arrange situations that favor their acquisition.

b. Significant Interests. We shall seek to develop in the individual a group of continuing interests. Interest in any matter may be thought of as awareness of it, joined with a desire and a tendency to be active with respect to it, at least to the extent of talking, reading, and thinking about it. The activity may often be far more extensive and impressive than this. One of the aims of general education should be to develop such vital interest in all the aspects of culture and activity that are of major significance in a democratic civilization. It should seek to generate interest in political action, in economic problems, in literature as an interpretation of life, and in the arts as they manifest themselves in the world today, to give only a few illustrations. And we believe that curricular materials should be selected and arranged with this aim definitely and consciously before us.

c. Insights. We shall seek to develop in the individual certain generalized insights—intellectual, esthetic, ethical. Examples are: the concept of functionality; the concept of works of art as cultural symbols; the concept of balance in esthetic design; the concept of integrity as a determiner of action. Such insights are among the culminating achievements of the sciences, the humanities, and the arts, holding together vast ranges of specific content. They constitute one of the most important means whereby the individual preserves his flexibility in the face of change, and shapes his own contribution to social living. Their whole value is compromised if they are set up merely as verbalizations to be memorized or if tied to narrow and specific contents. We must distinguish them sharply from dogmas, such as the superiority of the Aryan race, which lead directly to set patterns of behavior and inflexible modes of social living; for these insights are simply the broadest meanings achieved by the human spirit working with the materials of the sciences, the humanities, and the arts. Clearly, then, we must survey

our cultural resources for their most significant, most truly functional generalizations, and seek to select and arrange both our curricular content and our learning situations for their most effective acquisition.

d. Attitudes and Appreciations. We shall seek to develop in the individual certain attitudes and appreciations. Illustrations are respect for objective evidence, respect for integrity in oneself and others, appreciation of the needs and limitations of oneself and others, appreciation of human variability and individual differences, desire to play one's own part in the social drama, appreciation of the contributions of the major fields of knowledge and of the methods of work employed by workers in them. Clearly such attitudes can function in a wide range of life situations—in the home, the state, the economic system, and so forth. From the cultural materials we shall endeavor to select content best suited to develop them. To illustrate what this might mean, we may mention biographical materials revealing the devoted lives of great scientists and artists, and various types of sociological, anthropological, and psychological material. As materials of negative value revealing undesirable attitudes, we might point to certain types of advertising appeals, the outpouring of political demagogues, or the writings of the perverse, the dishonest, or the dictatorial.

e. Values and Standards. We shall seek to develop in the individual a recognition of the highest possible values and standards—intellectual, esthetic, and ethical. Here we have a most important element in the psychological equipment for a democratic way of life, for on the functioning standards possessed by a person will depend a multitude of his decisions as to what to accept and what to reject. Indeed, achievement of qualitative excellence and respect for it is one of the most pressing needs of democratic living. We shall wish to develop appreciation of such intellectual values as consistency, carefulness and factual fidelity of statement; a recognition of degrees of esthetic excellence; and power to discriminate obvious, superficial, and merely conventional modes of conduct from those that exemplify such major virtues as truthfulness, kindness, and courage. This at once suggests the selection from the natural and social sciences of material that reveals the nature of intellectual excellence related to standards of one kind; and material from the humanities and from the fine and applied arts related to values of other kinds. And it furnishes us with a valuable guide in setting up desirable situations for learning and teaching.

f. Emotional Control. We shall seek to develop in the learner effective emotional orientation and control. It must be recognized that

the democratic ideal cannot be realized as a way of life on a basis of purely intellectual acceptance of its claims, but that it demands also a corresponding set of feelings. We shall wish, then, to promote the loyalties and sympathies appropriate to it, and to bring them into active contact with the whole range of institutional living. At the same time, we shall seek to equip the learner with an understanding of the emotional problems of human nature, and to open for him avenues of emotional release and self-expression. Clearly this affords an important criterion for the selection and arrangement of materials from the natural and social sciences and the humanities. It indicates the choice of certain content from psychology, and also the utilization of the arts both from the standpoint of appreciation and of participation.

g. Creative Activities. Both in the selection and arrangement of our materials, and in the choice of learning and teaching situations, we must constantly have in mind the desirability of promoting creative activities. We have in mind such activities as the invention of modes of social and individual action, the invention of devices, and creative expression in literature and the arts. While the creative process is highly individualized, it cannot be expected to arise or proceed satisfactorily out of touch with the cultural tradition and its resources. For our curricular materials to favor it, they must be rich, suggestive, diversified, and brought closely into touch with the learner's immediate life situations and felt needs. They should be usable in learning and teaching situations to furnish background, impetus, and direction, and technical considerations should not be permitted to inhibit the learner's originality and expressive impulse.

h. A Philosophy of Life. Finally, as our most inclusive aim, we shall help the individual to develop an intelligent and workable philosophy of life, appropriate to a modern world and a democratic society. We cannot be content to stop short of encouraging each young person in a systematic attempt to integrate the generalizations, attitudes, interests, emotional orientations, standards of value, and creative impulses of which we have been speaking into a unified and controlling view of life. Such a purpose must exercise a constant and pervasive influence throughout our entire quest for materials. In our selection and arrangement of these materials for the learner we must seek to lead him to a sense of his own broad relations with the universe and to a comprehensive view of the permanent and basic problems of human living.

Specific techniques and specific information are items that have bulked large in conventional educational practice. These and the means for conveying them provide the vital contexts in which the primary items of psychological equipment have application. In our choice and arrangement of materials we must constantly be alert to the utility of techniques and information for the ends sought. We should consider whether any given technique should be reduced to a skill or merely examined for awareness of its general features and applicability. Similarly we should consider whether any given items of information should be set up for long-time or for short-time retention and recall, for recognitive memory only, or merely for the sake of apprising the learner of their existence so that he can refer to them at need. We suggest in this connection the importance of skills in the use of source materials, reference tools, note-taking, and the techniques of scholarship generally and of information that contributes to intelligent awareness of the responsibilities and potentialities of life.

The whole meaning and significance of curricular material turns on its influence upon overt action in a social environment. Much of the behavior we hope to affect is potential, not within the scope of young people still in school. But the value of the materials in determining desirable developments and in promoting in the future the ways of living we hope to secure will be much enhanced if they give rise so far as possible to immediate participation in the institutional behavior-patterns of society. This principle should be kept in mind in selecting and arranging the materials, and also in organizing the kind of teaching and learning situations most appropriate to our general purpose.

III. A SAMPLE PLAN FOR THE PREPARATION OF MATERIALS FOR GENERAL EDUCATION

In approaching the problem of the selection and arrangement of materials for general education, one must bear constantly in mind the principle that "materials drawn from the accumulated knowledge and wisdom of the race will be most readily grasped and will make the greatest contribution to the growth of the student when they are related to his activities and to the needs from which these activities arise." While the controlling aims of a democratically orientated general education will be everywhere the same, yet emphasis upon them will differ according to circumstances—as between rural and urban

communities, for instance, or between a group of pupils of average-to-low intelligence in a vocational high school and a superior group in a college preparatory school whose student population is highly selected—and the materials best adapted to secure desired outcomes will differ likewise. Obviously, the planning of actual curricula must be left to teachers and others in close contact with these specific educational situations, though there is clear demand for materials selected in accordance with their specific suitability for use in furthering the aims and purposes of general education and presented in a manner calculated to make them widely valuable to workers in that field. It is important that ways of meeting this demand be systematically explored.

One carefully conceived plan for assembling and organizing materials to facilitate their intelligent use in general education by teachers and curriculum workers embodies two main types of studies, as indicated in what follows.

1. Studies of Cultural Periods

A series of studies of cultural periods, to be presented as wholes, and in a fashion designed to make evident on the one hand the organic nature of society, the dominant rôle of culture, the emancipating effects of knowledge and understanding, the inevitability of change, the virtues of heterogeneity, the relative nature of many needs, problems, and institutions, and, on the other hand, the persistence of certain cultural elements and cultural processes.

By its focus of attention upon historical reality, this scheme appears to offer the best possible means to the development of whatever degree of fusion of subject matters may be truly justified. Finally, in its centering of interest in human beings at various times and places and in their multitudinous interrelationships, it makes possible the application of the criteria constituted by the framework of aims and purposes already set forth, both in the choice and in the arrangement of content in such a way as to bring this content into relation with the situations, problems, and interests of contemporary life.

These studies would contribute an organization of material depicting the manner in which individuals of different cultures have met the problems associated with intimate personal contacts, economic systems, governmental systems, instrumentalities of education, health, and recreation, and have made adjustments to their interpretation of the world.

These studies of cultural periods would not be all-sufficient for the purposes sought. They should yield a sense of the individual's social involvements, of the dominant rôle of culture, of man's increasing control over his own destiny, and of the crucial importance of understanding as a basis for such control; but they would not provide suitable opportunity for the relatively full developments of the traits and capacities necessary for the immediate situations, problems, and interests with which the individual is challenged. Therefore a second set of studies is needed as now to be explained.

2. Studies of Contemporary Knowledge and Belief

There should be a series of studies dealing with man's current knowledge and belief regarding the individual and his relations to our society, with special reference to their implications for his more intelligent meeting of problems. A suggested list of titles for such a series, to indicate roughly the several major fields of knowledge that would be drawn upon and something of their interrelationships, applications, and values, might be these:⁸

1. The organization of the physical universe and its changes through time.
2. Man's use of energy and of materials from the earth's crust.
3. The organization of the living world and its changes through time.
4. The interrelation of living things.
5. Man's control and use of living things.
6. The rôles of mathematics and science as means of increasing understanding of the nature of reality and of contributing to standards of value.
7. Man in his psychophysical aspects
8. Man's development and operation of agencies of social organization—economic, political, and so forth.
9. Man's intimate relations with other human beings: sex, marriage, the family, friendship.
10. Man's relations with men not of his own group.
11. The development of common standards of value in society.
12. The rôle of language as a means of social, scientific, and esthetic communication.
13. Man's development of the humanities for interpretation and guidance.
14. Literature and the arts as esthetic expression.
15. Philosophical and esthetic values.

⁸ Studies relating to the first six of these titles are in progress in the Bureau of Educational Research in Science of Teachers College, Columbia University, and reports on them are now being prepared for publication.

All the materials to be arranged under these titles would be chosen with reference to the controlling aims already stated; namely, of a democratically oriented general education. Thus, they would have intimate bearing upon the situations, problems, and interests most likely to challenge the individual in living in a democratic society and equipped with the traits and capacities we have specified as necessary if he is to deal adequately with them. One such set of materials may be briefly reviewed.

The importance in general education of the first title, for example, lies in the fact that much confusion has arisen out of the efforts of persons to make adjustments to current conceptions of the nature of the world. An aim of general education is to clear such confusions. To this end the study might include a systematic canvass to determine the specific causes of confusions in order that the findings could be used to guide the selection and organization of material. Undoubtedly such a canvas would reveal: a widespread following of astrology, fears for the destruction of the earth, a host of superstitious beliefs in good and evil spirits as determiners of destiny, belief in signs, and others. Such a canvas would reveal the character of the attitudes, appreciations, ideals, interests, and conceptions of value, related to this title, that are commonly held. Competent scholarship could then be enlisted to assist in assembling authoritative material appropriate to the educational needs that have been revealed.

Such a body of authoritative material would be immediately useful, for it would help the teacher to a clearer understanding of one of the major aims of general education (see Statement 7, above). It would help him to identify in his community and in his classes the problems, issues, and interests related to this aim. This could guide the teacher in his selection of approaches to study in this area, suitable to stimulate thought, arouse interest, and aid the students to organize their past experiences in relation to new interests. Similarly it could guide the teacher in the selection of learning experiences to advance this particular aim. Selections will be made to serve defined purposes. The teacher will draw upon standard scientific treatises for understanding of the biological and physical features of the world. He will use historical and religious works, for it is from these that one may learn the origins of his prejudices, superstitions, and other erroneous concepts and also the character of the understandings and adjustments made by others. Imaginative writings would be drawn

upon, since ideas of cosmology are widely used in fiction; for example in the writings of Jack London, Mark Twain, Thomas Hardy, Henrik Ibsen, to mention only a few. Many illustrations could be found in current motion pictures and, to the disgrace of American education, the radio would be pouring forth cosmological fraud to hold the attention of a gullible public while some commercial concern is advertising its product. In fact, the report of the canvass, together with a body of appropriately selected authoritative material, would serve as an effective stimulus to teacher and students alike to explore the whole of the cultural heritage for teaching materials to serve the needs that have been revealed.

Finally, the canvas and accompanying authoritative material would aid us in evaluating our educational efforts. Decisions as to the worth of new materials and experiences would be based upon evidences of changes brought about in students through its use. These will include: (1) changes in understandings and insights, showing that erroneous notions have been corrected and new ideas attained; (2) changes in ways of thinking, shown particularly in increases in critical-mindedness of what is purported to be true and in discrimination as to what constitutes bonafide authority; (3) expanding interests resulting from opening new areas of thought and feeling; (4) changes in attitudes and appreciations, such as respect for objective evidence, respect for integrity in oneself and others, appreciation of human variability and individual differences, and desire to play one's own part in the social drama; (5) more adequate concepts of values and standards; (6) more effective emotional orientation and control; (7) increase in creative activities, and (8) a more intelligent, workable philosophy of life characterized by freedom from major paradoxes.

This specimen plan of organization of materials suggests at once a scheme whereby the accumulated record of race experience, including scientific achievements, history, fiction, and works of art of many kinds, may be brought into relation with major problems and interests pertinent to the aims of general education.

The first and second series of studies are supplementary to each other. Through use of the first series the teacher and his students may extend their study to an examination of the adjustments by people in other cultures to the matters under discussion. For example: awareness of the interpretations of the nature of the cosmos in other cultures and a knowledge of the effects of these interpretations on their lives

will unquestionably help us to understand ourselves better, to be more tolerant, and, as teachers, to be more helpful to others.

IV. AGENCIES CONTRIBUTING MATERIALS TO GENERAL EDUCATION

The purposes of general education would be greatly advanced by a series of studies designed to explore the major causes of the misunderstandings and maladjustments with which we are challenged in our normal living, and to select and organize from our cultural heritage the materials most useful for their clarification. The means contributing to this aim would include libraries, museums, field trips, motion pictures, the phonograph, the radio, and other similar devices. Motion pictures, school journeys, and the radio are particularly useful as agencies when education is centered upon the contemporary scene. Probably these have been used most extensively in high schools, but experience indicates that they are being used with effectiveness in colleges, particularly during the first and second years. Problems of family life; of economics, particularly as it is related to use of resources; physical and mental health; and recreation have been treated in motion pictures with great effectiveness. School journeys provide a first-hand contact with economic problems, with governmental institutions, such as the courts, legislative bodies, and agencies for the preservation of health, and with the out-of-doors, thus affording the learner clearer insight into his relations to the physical universe and the life around him. All aspects of human interests are subjects of radio discussion. These newer educational agencies will be viewed by many teachers as innovations, but they have so much to offer for general education that they are given special treatment here.

1. School Journeys^{*}

In the fall of 1937, over 20,000 pupils from forty New York City high schools were taken on water-front trips in the study of civics and city government. For many the ferry-boat school of civics provided their first sight of Brooklyn, Manhattan, and Triborough Bridges, the Brooklyn Navy Yard, the tugboats of the rivers, the skyline of Manhattan, the airports, the Rockefeller Institute, battleships and barges,

^{*}This section of the report and most of the section on motion pictures were adapted from material contributed by Charles F. Hoban, Jr., of the American Council on Education.

the slaughter-houses, Ellis and Welfare Islands, the swift currents of Hell Gate. On returning, the students urged longer trips, more trips, a longer stop at interesting sights, and enough room to use a drawing board and a notebook. One wrote, "This was the first time I had been on a boat in the East River. I spent three hours of interest and happiness."

Among colleges the school journey is growing in favor. Stephens College takes an annual trip of several weeks, covering such activities as the Mardi Gras in New Orleans and café society in New York. Hood College has scheduled visits to museums and galleries in Washington and Baltimore and a detailed study of housing in the modern village of Greenbelt, Maryland.

The Sloan Foundation, new to the educational world, recently subsidized an experiment with school journeys at Lincoln School of Teachers College, Columbia University. No ferry-boat for Morningside Heights, but a bus-and-train trip to the disputed territory of TVA and the land of the sharecropper. *Time* describes the trip and its results:

Lincoln boys and girls have fun going to dances, hearing Negro choirs, fighting a forest fire, chatting with a Georgia chain gang that dug a path for their busses through a landslide. Most fun, however, was a taste of farm life in Georgia's Habersham County. After a hearty breakfast of grits, bacon and eggs, and biscuits covered with ham gravy and corn syrup, the boys and girls went forth into the fields to string barbed wire fences, lime the ground, scrape roads, chop trees, split logs, ride mules, barbecue a pair of pigs, drive a tractor (until student Katy Sprackling broke it). They astonished a Georgia farm family by rebuilding its shack, whitewashing the walls, cutting new windows, building a porch. At dusk they had enough energy to chase across the Georgia hills hunting 'possum.

The editors of the student paper, impressed with the coöperative stores they had seen at Norris, prepared to campaign for a coöperative lunch room. But when Lincoln's teachers tallied up the scores on attitude tests given the students before and after the trip, one thing that \$9,100 of Sloan money had bought amazed them. Most of the class had been in favor of government planning when they set out, and were more confirmed in that view when they returned. But no longer was a majority of the class in favor of government ownership of utilities. Learning for the first time that there were two sides to the question, enough pro-government-ownership students had switched to

an undecided or opposite position to make the median score of the class neutral.⁵

From the ferry-boat journeys there are indications of a new perspective of the world's largest community, of observing the manifold activities on the New York waterfront—activities related to national defense, food supply, immigration, crime and punishment, business and commerce, engineering, transportation, and the science of public health. The Lincoln School journey brought more direct participation in other life activities. Attitudes changed, new points of view developed, new activities were initiated, new concepts were developed and translated into action.

2. Motion Pictures⁶

Motion pictures are preëminent as material of general education primarily because of their realism, although they cannot, of course, provide all types of experience. Digestive appreciation of a Georgia breakfast comes not from a motion picture of grits, bacon and eggs, and biscuits covered with ham gravy and corn syrup, but from the temporal and spatial coincidence of a full plate and a bumper appetite. Motion pictures can, however, dramatize facts about things, processes, and people; help change attitudes; arouse sensitiveness; develop concepts, habits, and skills; and span the keyboard of intellectual and emotional activity.

When we approach situations of a more subtle and more elusive character, the motion picture gives new vision to general education. Not only can it be used where field trips are uneconomical; it can also convey the meanings of situations not readily discernible from mere observation. Journeys may provide only items of experience because of poor preparation or direction, or because too many trees obscure the forest.

Until about two years ago motion pictures could be divided into two distinct types: theatrical and instructional. The former were generally interesting and dramatic, the latter dull and academic. Hap-

⁵ *Time*, February 21, 1938, 29-30. *Time*, it may be added, has been campaigning against the dull writing of educational activities.

⁶ For a comprehensive survey, including experimental studies, of the place of the motion picture in education, with special reference to its use in the public schools, the reader may consult "Radio and Motion Pictures," by Arthur Jersild, being Chapter VII in Part I of the current (1939) Yearbook of this Society, entitled *The Curriculum in Relation to Child Development*.—Editor.

pily, the distinction is slowly breaking down. There is no reason why instructional films should be dull, except that they have been produced in a culture that regards education like medicine; it must be bitter to be effective.

Use of the motion picture to show physical phenomena not otherwise demonstrable and to show production of economic goods is not only legitimate but highly desirable. High-school and college students still like their education straight. However, there are social defenses against disease and there are necessary social adjustments of agriculture and industry that lend themselves equally well to motion-picture production and are equally important to general education. It is in this type of motion picture that a great paucity exists today. Social values and social concepts do not grow like Topsy; they must be cultivated.

The renewed interest shown by many sources of educational motion-picture production augurs a new supply of excellent films. The federal government, the motion-picture industry, private business, educational foundations, and universities have recently awakened to the power and influence of motion pictures in general education.

The federal government led the way in this country to what is variously termed the 'documentary', 'realistic,' and 'functional' motion picture in the production of *The Plow that Broke the Plains*, by the deposed Resettlement Administration of the Department of Agriculture. With certain exceptions this film is entirely done in natural setting, cast from a few native farmers, their wives, and their children. Its purpose is to show what happened to the people and the soil in the dust-bowl area when speculation routed planning in the use of natural resources. The story is told almost entirely by the camera, the emotional meaning interpreted almost exclusively by the music.

Another film, *The River*, produced by the Farm Security Administration, dramatizes the problem of the destruction of lumber resources and the consequent terror of flood. The other horsemen—famine and war—also ride in the picture.

Three overtures have been made to education by Hollywood: (1) the vaults to the Museum of Modern Art Film Library have been opened, so that a complete library of films important in the development of the motion picture as a medium of artistic and dramatic expression is now available in 16 mm. prints to schools and to other educational groups; (2) nearly two score of feature productions have been made available to the Commission on Human Relations of the Progressive Education Association for editing in short versions posing impor-

tant problems in human relations; and (3) the short subjects produced during the past five years have been reviewed by panels of teachers for selection of appropriate subjects to be released to schools if an acceptable system of non-theatrical distribution is established.

These overtures have opened two important fields for motion pictures in general education: first, the study of the motion picture as a form of dramatic expression and as a reflection of twentieth-century living; second, the study of problems of human and social relations as dramatized in a commonly accepted medium. As a result, there has been an increased interest and activity in the general area of motion-picture appreciation on the college level, and experimental introduction of motion pictures in studying problems of human relations.

Introduction of motion-picture 'appreciation' as a curricular activity has been growing since the Payne Fund investigations of the effects of theatrical motion pictures on information, attitudes, emotions, morals, and conduct. Two findings of these investigations prompted this movement: first, the almost universal attendance of children at the movies every week; second, the oversexed and amoral content of the pictures children attend. The Legion of Decency was organized to bring pressure on producers for a socially better motion picture through boycott at the box office. This action was realized to be of immediate importance. More enduring improvement, however, demanded a long-range development, and thus there arose the movement to improve the standards of motion-picture criticism through direct instruction in schools. Courses were introduced, particularly in high schools, on the rôle of the director, the writer, the actor, the cameraman, and other technicians, and the treatment of human and social problems on the screen. Students were urged to consult reviews of current films and to shop for worthwhile pictures. In the wake of this movement came the study guides to films current in the theaters. These study guides were not obnoxious to either producers or exhibitors. They improved public relations immeasurably. Many of these study guides were financed, at least in part, by the motion-picture industry and in many cases they lacked social criticism. For instance, a study guide on *The Charge of the Light Brigade* made no reference to the glorification of war in the photoplay and the dramatization of human carnage in a setting of personal glory and racial triumph. Establishment of a library of motion pictures important from the technical and social points of view removes the sales promotion aura from the appreciation movement and permits

an adaptation of motion pictures to various points of view and curricular emphases. As a result, Stephens College utilizes theatrical motion pictures in its study of communication and Bryn Mawr utilizes them in its study of dramatic expression. On the other hand, the New School of Social Research devotes a course to the documentary motion picture as a medium of social education. All three agencies use films from the Museum of Modern Art Film Library. Availability of great motion pictures for classroom use has facilitated the development of a more functional general education. Use of such films in a general-education program promotes the development of a mature understanding and appreciation of the motion picture as an aspect of American culture.

The second contribution of theatrical motion pictures to general education is being made in the field of human relations. Under the direction of Alice V. Keliher, Chairman of the Commission on Human Relations of the Progressive Education Association, selected photoplays are being edited into short versions on problems of human behavior.

For instance, three versions have been made from *The Devil Is a Sissy*. The first shows how a youngster, thrust from a more favored environment into the New York slums, becomes involved in a street gang; the second shows the effect of divorce on this youngster; and the third shows the juvenile court in operation as the youngster and his gang get caught in the law. Such films are used as a basis of discussion of basic behavior issues. They are not intended to provide answers to ethical questions of behavior, but to raise the issues underlying these questions for discussion. Out of such discussion it is assumed that adolescents can reach the right answer on a rational plane. Films in this series include *Fury*, which dramatizes the problem of lynching and the inciting of mob action through whispering, gossip, and other techniques. Another of the series is *Men in White*, which presents the problems of extended professional training versus marriage, the status of women in modern society, and the issues of social success versus social service. The intent of this series of films is not to replace authoritarian concepts but to provide experience out of which a hierarchy of values can be derived by the youngsters as guides to their own living. Here, again, the motion picture can contribute to a functional general education.

Another interesting study⁷ of the motion-picture as an agency in general education is under way in the General College at the University of Minnesota, under subsidy from the General Education Board as a

⁷ The description of this project is contributed by Malcolm S. MacLean, Director of the General College, University of Minnesota.

three-year experiment. Mr. R. A. Kissack, Jr., the director of the experiment, and his associates are experimenting with materials, cameras, and lights to determine the best type or types of motion picture for use in classes in general education. It is their intention, for example, to take an area of immediate interest, such as the problem of conservation and utilization of natural and human resources, to prepare a 'shooting' script on, say, lumber or mining, by coöperation with the State Planning Board, with the faculty of the University in the Departments of Forestry and Mines, and with private industries, and to develop this script into a usable film revealing to the youth of Minnesota in general-education classes the problems involved, the causes and consequences of past processes, present practices, and future trends. It is their intention to take well-edited, fully integrated sections of such film and test them in general-education classes as (1) silent film accompanied by a lecture by the teacher, (2) sound film with a 'canned' lecture by a competent faculty member, (3) such a lecture or running commentary in the fashion of the off-stage commentator (in such documentaries as *The Plow that Broke the Plains* and *The River*) with and without musical background, and (4) the natural voices and speech of miners, lumbermen, and executives with or without carefully composed musical accompaniment. These films are to receive thorough testing, especially at Minnesota, and also in other institutions, both high schools and colleges, and are to be subjected to thorough-going processes of evaluation by a staff thoroughly trained in evaluation.

3. The Radio^s

The chief educational importance of radio broadcasting is that the experience of listening extends the environment of the listener. If general education is acquainting the student with the world in which he is to live, the radio is an important instrument for the purpose. In many parts of America now, young people live in a world of sound to a greater extent than was ever possible before. Doubtless there are difficulties and dangers implicit in the situation. Future generations may become indifferent to listening experience that is now pleasurable or exciting. Or, without knowing it, we may turn into creatures so 'ear-minded' that we shall find much of our accumulation of cultural and educational

^s This section was contributed by Professor Lyman Bryson, Teachers College, Columbia University.

See also the reference given in Footnote 6—*Editor*.

machinery useless. But, while we are waiting for these possibilities to become real or to disappear, we can make good use of broadcasting as it now plays a part in normal lives, in both the school and the home.

This suggests the use that may be made of broadcasts direct from the scene of some interesting public happening. A great national celebration, an important conference, an exciting contest in sport, a legislative debate—these things can be brought vividly to the imagination of the listener. Some day we may be able to estimate the difference it has made to the young student in history to be able to hear, at the very moment of its delivery, the abdication speech of a king, the speech of Hitler as he takes possession of Austria, of a famous Chinese woman pleading for help for her country in the midst of a battle, or of an appointee to the Supreme Court as he defends his political record. Such things cannot be put into schedules of classroom time; in fact, they may upset carefully thought-out programs. But they are the stuff of life.

Those who take trouble and time to canvass the immense offering of American broadcasting find more good things than they can possibly listen to. The person who expects to get something worth while by casually tuning in is likely to be disappointed. Few people would go into a great library and judge it by the first book at hand. We expect, when we have learned the uses of books, to find our satisfaction by discrimination and we study catalogs as well as shelves. The radio cannot be intelligently used unless we are willing to take the trouble to discriminate among programs the same way. Time schedules make this more difficult, of course, and one of the things that is most needed is a better system of program guides. At present complete guides are issued in periodicals, but few educators make use of them. When they get more support, they will be better annotated and more intelligently edited. It is also true that there are practically no organs for the criticism of radio programs comparable to the reviews of books, pictures, drama, and music that are generally available. These, too, will probably come into existence when there is a discriminating public to appreciate them.

It is possible, however, to indicate some of the excellent things in today's fare and to express the hope that they or features similar in purpose and superior in accomplishment will be offered in the future. Only programs supported by the broadcasters without advertising, 'sustaining' programs, are mentioned, although it is obviously true that many commercially sponsored programs are of great value.

The discussion of current social problems has proved to be as exciting for young people as for adults. "The Chicago Round Table," a three-person dialog maintained by the teaching staff of the University of Chicago, has been on the air for eight years. It has served as a model for many similar discussions and has a faithful, numerous following. In this half-hour there is a demonstration, as T. V. Smith, one of its most regular collaborators says, of "the process of thinking." Experts do not deliver themselves of carefully reasoned opinions prepared in advance. The talk is spontaneously delivered and the listener gets an intimate immediate experience of good minds at work. The dramatic value of sincere, vigorously expressed differences is part of its appeal for the audience.

America's "Town Meeting of the Air," now three years old, has some of these same values and others that are unique. The program is a combination of prepared statements on controversial issues and lively questioning by an interested audience of one thousand persons. Instead of the intimate colloquy of learned men, wrestling with their peers, there is a public debate sharpened and developed afterward by the lively reactions of a representative section of the public. In hundreds of places scattered over the country, groups have been organized to listen together to the "Town Meeting of the Air," and they carry on the discussion afterward.

The Columbia Broadcasting System, with the advice of its Adult Education Board, is experimenting with a third type of discussion not exactly like either of the two National Broadcasting Company features. Like the "Chicago Round Table," "The People's Platform" is a discussion among the members of a very small group. Those present, however, represent a cross-section of public opinion rather than the thinking of professional scholars.

All three of the major networks and many single stations have news of science, talks about books, pictures of typical phases of American life—like, for example, "Americans at Work," and dramas of historical happenings. These offerings differ greatly in quality, but a good deal of the best intelligence in the radio world is being constantly devoted to their improvement. There are even some signs that the originators of commercial programs are looking to educators, psychologists, and trained critics for advice. It is clearly evident that a large section of the listening public is discovering that trivialities are tiresome in the long run and that more substantial fare is really better entertainment.

The Columbia Broadcasting System has its special broadcasts for classroom use in the "School of the Air." In this, all the devices and resources of broadcasting have been used, under the direction of an eminent group of educators, to convey knowledge and understanding of more-or-less conventional subject matter. The National Broadcasting Company has taught an appreciation of good music to thousands of school children in the Walter Damrosch series. (Not much is said here of music because it is so obvious that the radio has been accepted as a first-rate instrument for musical education.)

Many of the educators who have been most critical of radio as a social force and most skeptical of its usefulness for educational purposes have said that stations under the direct control of educational institutions would help solve the problem. It has now been proved, however, that institutional broadcasting can be successful only when it competes on equal terms with commercial broadcasting. Some of the state university stations have gained and held large audiences, not because they were backed by institutions, but because they were skillfully directed. Good examples of successful broadcasting may be found at the state universities of Wisconsin, Michigan, and Iowa. A somewhat different contribution has been made by the United States Office of Education. Large funds from foundations and broadcasting companies have been made available for research and will eventually result in a much better knowledge of the effects and possible refinements of broadcasting methods. But while this research is going on under the general direction of the Office of Education and allied institutions, the Office of Education has produced a number of program series and broadcast them on time given by commercial networks. "Let Freedom Ring" and "Brave New World" are examples, both of them effective and valuable experiments. A general clearing house for scripts, ideas, and educational help is already well established in this Federal bureau.

An educator who is alive to the world of sound that the invention of the radio has created will think of it as one of the worlds in which his students are going to find pleasure, understanding, guidance, and growth—in the degree that he teaches them to use it for those purposes.

The film and the radio are teaching educators the value of up-to-the-minute material. The situations, problems, and interests that challenge modern life are the stuff of which film and radio are fashioned. The point of view of general education, together with comprehension of its aims and purposes, will give guidance to teachers in the use of radio and film, and in the use of printed matter, standard and ephemeral, with which we in America seek to educate ourselves and our fellow citizens.

SECTION IV
TRENDS

CHAPTER XVI

DOMINANT TRENDS IN GENERAL EDUCATION

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I. INTRODUCTION

The previous chapters of this Yearbook abundantly demonstrate the extent of the groundswell in general education in the United States. They show the vitality of contemporary concern with problems of general education at the college level. They also make it clear that the term 'general education' has not yet achieved any sharp definition. Indeed, one author suggests that it might be desirable to find some other phrase to describe the phenomenon. It seems unlikely that this will be done, since the term is already widely used, has taken tenacious hold, and must be built upon, instead of discarded. It is, however, clearly desirable that general education should be continuously and widely discussed and that every effort should be made to clarify the concept. The present chapter is designed to contribute to that purpose by identifying some of the major trends in general education as indicated in preceding chapters of this Yearbook.

It is starkly clear that a major cause for the current concern over general education at the college level is the steady lengthening of the normal period of formal education in this country. Although this is partly due to the increased difficulty youth had in finding jobs during depression, the trend itself is of such long standing that it would be unwise to attach too much importance to the influence of strictly recent employment trends. The percentages of young persons of both high-school and college ages who attend either type of institution have steadily risen since the turn of the century. It is hard to believe that, even with an upswing towards 'prosperity,' these trends would be re-

versed. In our culture, graduation from the high school is rapidly becoming a universal custom, and going to college is no longer reserved to the few. With the growth of state and municipal universities and the spread of public junior colleges, the popular demand for education beyond the twelfth grade inexorably grows. At the same time the integrity of the four-year-college unit is breaking down and the end of the sophomore year is coming more and more to be looked upon as a logical terminal point for formal general education, although in the field of adult education (outside the scope of this Yearbook discussion) it may be continued indefinitely.

The rapid increase in the number of college matriculates has put a very heavy strain upon established procedures at the college level. The colleges have discovered that their courses and methods of teaching do not work satisfactorily with an increasing percentage of students. This fact has been made dramatically clear by the large number of student withdrawals, voluntary and involuntary, prior to graduation. Granting that much of this student mortality has been due to causes over which the colleges could exercise no control, it is clear that in many cases the real needs of students were not being adequately met. Some colleges have been able to avoid many dropouts by maintaining or stepping up old standards of admission, but most have found it financially or socially impossible or unwise to do this. Public pressure has favored democratization of the colleges, and the rigors of the depression have led many institutions to modify formerly strict and narrow requirements. Not only have college faculties become uncomfortably aware that large numbers of undergraduates were getting little or no benefit from their college experience, but they have also observed that both college graduates and those with a partial college training are not fully meeting the problems of adult life.

There have also been other goads to self-criticism and self-reëxamination by the colleges. In consequence of recent social changes the problems of youth in our society have demanded increasing attention, and inevitably education has been viewed as a process that should contribute notably to meeting these problems. At the same time national and international developments have generated a deep concern over the future of democracy. Again inevitably there has been an increasing demand that education should more effectively play its part in producing citizens who understand democracy, who believe in it, and who both want to participate and are capable of participating effectively in a democratic society.

All these influences have played upon the colleges. They have also, of course, deeply influenced the high schools. Indeed, the sharp line formerly existing between high-school graduation and college matriculation has tended more and more to be erased. As the broad responsibilities of the colleges to continue general education for a larger and larger percentage of American youth have become evident, it has been seen that a better articulation between the high school and college must be attained. Moreover, the modifications in point of view and practice that have taken place in the high schools as their populations grew have naturally made impact upon the colleges.

With this background it becomes possible to consider the major trends in general education at the college level. The evidence for the existence of these trends is found in the preceding chapters and will not be repeated in detail here. The discussion will be organized under five major headings as follows: (1) trends towards closer study of the circumstances that must, or should, condition general education; (2) trends towards a critical determination of general educational objectives in the light of new circumstances and of a better understanding of those circumstances; (3) trends towards experimentation with various procedures selected because they promise to contribute to the attainment of such objectives; (4) trends towards a program of continuous weighing and evaluation of the efficacy of procedures in the attainment of objectives; and (5) trends towards administrative modification.

II. TRENDS TOWARDS THE CLOSER STUDY OF THE CIRCUMSTANCES THAT MUST, OR SHOULD, CONDITION GENERAL EDUCATION PRACTICE

A trend of fundamental importance in connection with the improvement of general education at both high-school and college levels has been towards a closer study of those circumstances that must, or should, condition the educational theory and practice of any particular institution. The modern sciences of physiology, neurology, and endocrinology and those of psychology, psychiatry, and mental hygiene are providing educators with a great number of new insights regarding the human material with which they are privileged to work. Experts in the study of adolescents are producing results of particular importance for general education, and it may be anticipated that this new knowledge and the additions that will be made to it will be increasingly and extremely influential. We have become sharply aware of differences between indi-

viduals. We are now beginning to see each individual in himself as a unified, yet dynamic, pattern of traits, abilities, skills, interests, and motivations, a bundle of teeming emotions, desires and wants, dreams and passions. We are also beginning to see how the internal pressures of his nervous and glandular system and the external pressures of family, social, and physical forces make of each student a true individual varying at any time, not only from other individuals, but also from himself as he existed previously or as he will be later. Such a view patently supports the position of those who object to the application of rigid routines to high-school and college students.

1. Studies of Adolescents—Individual Needs

Prescott in Chapter III has already sketched some of the conclusions thus far reached by students of adolescents and has referred to some of the more important contemporary studies from which still further information may be expected. It is to be anticipated that studies of this character will increase in scope and number and that, as their results are reported, there will emerge an increasingly concrete and detailed picture of American youth. Upon this picture, educators will be able to base further rational experimentation towards meeting the multiple needs of young people for education in skills, in vocational and professional theory and practice, and in home and family, personal, and social and civic activities.

Such a general picture might, however, do more harm than good, were its production not being accompanied by emphasis upon individual trait variations. Fortunately, the student of adolescents is developing tools, tests, and techniques that are making it easier for him not only to understand youth in general, but also to understand particular variants from the general pattern and variations within individuals. Thus we are advancing steadily toward a time when it will be possible to tailor-make a curriculum to fit each individual and to make maximal contribution to the development of that individual's powers, abilities, enthusiasms, skills, appreciations, and insights.

In response to all this, persons charged with responsibility for general education are making an increasing effort to become aware of the needs of their students. Particular attention is inevitably being paid to individuals viewed as unique personalities with distinctive and changing patterns of needs. The interest in guidance is growing rapidly and with it the tendency to increase greatly the number of records kept on

each individual. It is more and more recognized that the intelligent discharging of educational responsibility must increase with the gathering of as much pertinent information as possible regarding each student and the careful analysis and interpretation of that information. It is also coming to be seen that, while experts in collecting and interpreting material by tests, analysis, and interviews are indispensable, nevertheless each faculty member should have the personnel point of view and at least some competence in guidance.

2. Studies of Adolescents—Common Needs

Students of adolescent needs have not, however, stopped short in the study of individual cases. Important efforts are being made to identify *common* needs and to group these according to various schemes of classification. These groupings are being used as a basis for curricular reconstruction. In this regard there is a fundamental difference in the experimental work going on in various colleges. Thus, Johnson, in Chapter VI, shows that in evolving the Stephens College curriculum Charters made a study of adult women on the assumption that the needs of such women, thoroughly discovered and analyzed, might give the proper base for a college curriculum to meet the common needs of young women. As Johnson points out, they arrived by this method at a seven-point category of common needs. These were: (1) a need for training in communication by speech and writing, (2) a need for appreciation of the beautiful, (3) a need for social adjustment, (4) a need for training towards the maintenance of physical health, (5) a need for training towards the maintenance of mental health, (6) a need to become alert, aware, and intelligent about personal and family consumer problems, and (7) a need to develop a philosophy of living. To this seven-point category the staff of Stephens has now added an eighth, which they agree is an area of need common to all women; namely, a need for a knowledge of science in terms of life problems.

MacLean, in Chapter VII, accepting somewhat the same premises, has described how his staff carried on studies of both the late adolescent young men and women in the General College and of former University of Minnesota students who have been out of college on an average of ten years. These studies were made coöperatively and coördinately in an attempt to discover common present and future needs. Before these studies were made, however, the General College preliminary analyses disclosed ten possible functional areas of common need.

Since the results of the adolescent and adult studies have begun to come in, the staff has started to reorganize their curriculum on the basis of four fundamental areas of common need; namely, (1) individual orientation, (2) home and family orientation, (3) vocational orientation, and (4) social and civic orientation.

A similar pattern of four areas has been developed at the Mount Pleasant (Michigan) State Teachers College. Further, both the Committee on the Function of Science in General Education of the Progressive Education Association Commission on the Secondary School Curriculum and the Educational Policies Commission of the National Education Association have organized their recent reports on the objectives of education into a similar four-point category. The Progressive Education Association Commission calls its division "The Four Basic Aspects of Living." They are (1) personal living, (2) immediate personal-social relationships, (3) social-civic relationships, and (4) economic relationships. The Educational Policies Commission states its four areas in terms of (1) self-realization, (2) economic efficiency, (3) human relationships, and (4) civic responsibility.

If we approach general education from another point of view, however, and base our approach on different underlying assumptions, we get quite another category. For example, in Chapter VIII Works shows how the faculty and administration of the University of Chicago attacked the problem. They assumed that youth should be given in college, in general education, *familiarity with fields of knowledge* with which adults come in contact in their everyday lives. In other words, the proponents of this point of view say that we have a common need to know and share knowledge in great subject-matter divisions. Again, we find four categories of common need, this time stated in terms of subject matter. These categories are (1) the physical sciences, (2) the biological sciences, (3) the social sciences, and (4) the humanities.

Many institutions have followed this four-part subject-matter division in their attempts to develop general education. They have created many types and varieties of survey courses.¹ They have within areas gathered materials by types. They have condensed vast quantities of detail and compressed these into outlines of various kinds, some chronological, some by 'movements,' some by biographies of leaders. Whatever their method, they have justified the new subject-matter reorgani-

¹ See B. Lamar Johnson (Editor). *What About Survey Courses?* (New York: Henry Holt and Co., 1937)

zation on the basis that students need to know the things taught in order to be cultured, to exercise judgment later on, to live satisfactorily.

It seems clear that these two approaches, apparently as wide apart as the poles, are actually the two ends of the same thing. Education, moving from one end, says: "Let us find out what our students are like now and will be like later. Let us discover their problems, attitudes, interests, and activities. Then let us find from our present world and from the great classic lore of the race such subject matter as will be most illuminating and helpful to them in deepening their life satisfactions." Education, moving from the other end, says: "Let us take the best that man has written and thought in all the fields of knowledge. Let us give this to our students to study in the faith that if they learn the fundamentals of biological, physical, and social sciences and if they read widely in arts, literature, and music, they will have a common language, a common set of attitudes, interests, and judgments and by these means serve their needs and society's."

The value of the latter point of view is that it follows long-established tradition; it appeals to the subject-matter specialist and protects his interests; it gives the student—if he accepts it—background. Its dangers are equally obvious. There may result courses lost in factual detail and stressing background so much that no foreground or focus of interest appears, and the bewildered student may make little or no link between himself or his world and the things he studies.

The value of the first approach is that it leads us on to know students as we have never known them before, to focus on problems vital to them and their society. In early experiments there was a danger arising from a tendency on the part of the students of adolescents to center upon present needs. Adult studies have made us aware of the significance of future needs and of contemporary needs of which the student in college may not be consciously aware. There is a growing tendency to take the student's own testimony as to his desires, interests, and attitudes. Yet, it is recognized that he may be quite unable to put some of his most pressing needs into words. Moreover, despite the increasing attention to the adolescent as he is, there is no inclination to overlook the importance of providing him with experiences that will prepare him to meet future challenges effectively. Thus, although he is not yet married, does not yet vote, is not yet seeking a job, he may be offered, in general education, courses designed to prepare him for the responsibilities of home-making and of citizenship, and for the intelli-

gent choosing of a life work. In this connection it is to be noted that the concept of 'need,' as it is coming to be employed in general education, by no means ignores the fact that the individual is a social being and that his needs are culturally conditioned.

At this point another important consequence of the close study of adolescents should be mentioned. There exists now an increasing awareness that students vary significantly in their capacities. The old simple notion that boys and girls may be successfully classified as either bright or stupid is rapidly giving way. Instead, the trend is towards an identification of various types of abilities, including a number that can hardly be considered 'academic' in the traditional sense of the term. A number of research men are now engaged in breaking down academic intelligence into component elements. Thurstone, for instance, declares that one factorial study suggests seven primary abilities: facility with numbers, verbal fluency, visualizing, memory, speed in perceiving, inductive ability, and deductive ability. Others are busily exploring ability in the mechanical, social, and practical (in terms of money-getting) fields, while still others are studying both creative and appreciative abilities in art, music, and writing. These various abilities are all needed by society. Education has some function in relation to each one. They appear not to correlate closely with each other. Such findings support those educators who feel a responsibility to provide varieties of educational experience that will enable students of differing endowments to make the most of their individual traits and capacities. This clearly does not imply any slighting of what has commonly been known as the 'higher' mental processes. A close study of adolescents and their needs must indeed only strengthen the conviction that it is important to develop powers of generalization to the highest possible degree.

3. Studies of Society's Needs

Studies of adolescents have been very important in helping schools and colleges to understand some of the other circumstances that condition their educational activities.

Just as general education needs to understand the capacities as well as the needs of individuals, so it must comprehend the resources as well as the needs of the community. Such resources are of profound educational value and will be employed by enlightened educators to an increasing degree. The trend in this direction can be more effectively

described later, but at this point it is important to emphasize that the community should be used both passively and actively for educational purposes. Observation and participation are both important, and general education must be well aware of the opportunities provided by communities for both.

Of equal significance for general education have been studies of the nature of society, of the community, and of the function of education as a social institution. Concern over the contemporary fate of democracy has given particular impetus to these inquiries. The development of an organismic psychology has been paralleled by the growth of an organismic sociology. Education has become more vividly aware of the fact that neither the individual nor society will be well served by instruction that fails to promote a proper sense in the student of his social responsibility and dependence and a genuine skill of social participation. It is indeed clear that to try to distinguish sharply between personal needs and social needs is to attempt the impossible. A recent discussion of this question may be profitably quoted.

The difficulty with the new approach is that the word 'need' has a variety of meanings. What is meant when it is claimed that the curriculum of the secondary school should be based upon the needs of adolescents? To some, it means that all learning activities should spring from the immediate felt need or desire of the student. This position obviously carries with it certain very definite limitations. To others, the conception means that society makes certain demands upon the individual, that the teacher's business is to discover what these demands are and to organize learning experiences to meet them. Hence, the teacher can truthfully say that John needs physics—or, more specifically, he needs to know Boyle's law. Between these two extremes there are, of course, many widely differing interpretations. In the face of this chaotic situation, it is necessary for those who use the term to make clear, by either definition or context, the meaning they have in mind.

In [our] opinion . . . the most helpful, as well as the most accurate, way of looking at this conception is to regard needs as personal-social in character . . . A need will have always a personal or individual aspect which may best be understood as a biological or somatic tension. Expressed in common terms, it refers to some want or desire which the individual seeks to satisfy. But wants or desires are not to be determined by studying the individual out of relationship to the social environment or the culture patterns in which he is enmeshed. Needs do not exist 'under the skin' of the individual or in a vacuum.

They arise and work themselves out in living, dynamic events which can only be described as interactions between the individual and the social situation. Thus, when we speak of 'the need of the student to select and use goods and services wisely,' we refer to a want (biological tension) or a desire on the one hand, and the requirements, demands, standards of social living on the other. To speak of a need without including both its personal and social aspects is to leave out an indispensable element. Merely to say that John wants something, or that Teacher X believes John needs a particular piece of knowledge, is to leave out the element of interaction between the two necessary components.

Now when the term 'need' is used in this manner, it is evident that in any need as it exists at a given moment the two aspects will be present in varying degrees. Indeed the emphasis shifts back and forth from one aspect to the other. Some needs, such as the need for 'self-assurance,' are more personal in character, whereas others, such as 'the need to participate with others in social-civic life,' show more obviously their involvement in the social scene. But in the case of both of these illustrations, the two aspects are present. Self-assurance cannot be attained except with reference to situations involving the environment, typically, also, involving other persons; if it were possible for a person to exist in a vacuum, the problem of self-assurance would never exist for him; on the other hand, there would not be participation in social life except because of the needs of individuals. In the first illustration the teacher may be chiefly concerned with establishing fruitful relationships between the individual and environment and directing the 'need for self-assurance' into socially desirable channels. In the second illustration, the teacher may be concerned primarily with discovering the personal, individual tension which calls for participation with others and with ways of directing it profitably. At the risk of seeming to labor the point, it must be said that the teacher must be concerned with the total situation in which the interactions are taking place.²

It is, of course, true that students of society vary in their views of the nature of society and of appropriate relationships existing between individuals within society. Indeed, there is at present a world-wide conflict of opinion with respect to these matters. One group is made up of those who defend the ancient aristocracies of power and blood, the present aristocracies of money, or the possible aristocracies of brains.

² *Science in General Education*. (New York: D. Appleton-Century Co., 1938) pp 25-26. (Quoted with minor changes.)

This group ranks itself in battle order against another that holds that democracy can and must prevail and that no aristocracy of any kind should be permitted to maintain control. The former group would at best have a society in which a handful of 'leaders' superimposes its will upon a mass of mental peasants. The latter would, through education, have even the weakest member of the social order brought to his highest competence and his greatest insight, in order that he might successfully share both in serving and in controlling the state. It is obvious that the philosophy of general education emanating from one camp would be startlingly different from the philosophy of general education emanating from the other.

It is the evident assumption, however, of most of the thinkers in the general education field that, in democracy, personal and social needs coalesce. They believe it possible to provide high-school and college students with educational experiences that will at one and the same time develop their potentialities more fully as persons and as participating members in human society. It is likewise evident that as a background for setting up assumptions and objectives, and planning the procedures of general education, a balanced understanding of individuals as members of society and of society as made up of individuals must be attained. Too much emphasis on the one side may lead in the direction of anarchism. Too much stress on the other may lead in the direction of totalitarianism.

III. TRENDS TOWARD A REFORMULATION OF EDUCATIONAL OBJECTIVES IN TERMS OF STUDENT NEEDS

A second major trend in general education is towards a reëxamination of its purpose. Spurred on by new conditions and stimulated by new knowledge regarding the circumstances that condition their efforts, leaders in general education have sought to state afresh the educational outcomes they desire to attain. In the junior colleges there is an increasing tendency to emphasize the 'terminal' function and to see as a major purpose the rounding out and formal completion of general education. This does not imply the notion that general education is something that should come to a full stop at the end of any particular grade or college year. It does, however, imply a revolt against dictation, more or less subtle, from above. Fortunately, as earlier chapters in this Yearbook have made clear, there is a growing reaction on the part of higher education, particularly of professional education, against the

common practice of requiring specialized preprofessional curricula in the lower division or junior college. Indeed, as has been noted, the new emphasis is upon the importance of a well-rounded general education.

1. A Functional Approach

Of particular importance is the trend towards a functional point of view in defining educational aims. The paramount objective of general education is declared to be that of helping individuals to meet their needs satisfactorily by participating effectively in democratic group relations. There is, naturally, a related tendency to state the objectives of general education, not vaguely, but rather in terms of specific student behavior. College catalogs dating back over many decades reveal numberless statements of broad objectives with which general education today could hardly quarrel. But there are two difficulties with these statements. First, they are couched in high-order abstractions, which the reader can hardly interpret exactly. Second, modern educators suspect that there was often in the past insufficient demonstrable relation between these objectives and the procedures employed for their presumable attainment. At any rate, the present trend is to set up objectives in terms of definitely describable student behavior, having a clear relation to personal-social needs, and then to employ all possible ingenuity to discover the extent to which those objectives are in fact being reached. An institution may grant that good citizenship should be one consequence of its general education. It will not be satisfied that it is training for good citizenship unless its students grow in the social and civic life of the school while they are in school and unless as graduates they demonstrate continuing intelligent participation in community, state, and national affairs.

2. Emphasis upon the Whole Organism

Such specific objectives are, moreover, giving due attention to physical, emotional, and esthetic growth instead of stressing merely the scholarly and intellectual. There is a turning away from the old concept that a student may be considered merely as an isolated brain to be channeled and filled, as merely a mind in the making. On the contrary, the concern of general education is more and more with the whole person as he is now and as he will become. This does not, however, as some uninformed critics have assumed, imply any anti-intellectualism. Intellectual attainments are, indeed, now seen to be conditioned by physical, emotional, and social factors. Consequently, general education

makes a clear assumption that the best mental training and discipline takes place in an environment where the conditioning circumstances of endocrine balance or imbalance, energy level, dietary practices, disease and its results, emotional drives for affection and love, impact of family, social and economic pressures, and esthetic experiences are widely and fully recognized and understood.³ General education demands better mental training, clearer insight, broader understanding of interrelationships than we have yet had. It conceives of itself, not as preliminary or preparatory, but as complementary to special vocational, professional, scholarly, and research training, giving such training a new determination, a new strength, and a full functioning. Yet general education does represent a definite reaction from premature and overdone specialization. This reaction is conceived to be in the interest, not only of the individual, but also of a democratic society. Our society is marked by a greater and greater degree of functional specialization. But if it is to maintain its unity, if specialists are to work together with democratic effectiveness, then it is essential that each person should have a considerable degree of understanding of the purposes, interests, and points of view of the others. A college faculty made up of individuals so highly specialized that they misunderstand and sneer at each other does not constitute a healthy or a democratic group. Neither does a society similarly circumstanced.

3. Emphasis upon Growth

It is important to emphasize that general education is tending to concern itself, not only with the whole person, but also with the growing

³Reporting on a three-years' study of fifty young men of college age by twenty-eight psychologists of various schools and persuasions, among whom were three physicians and five psychoanalysts, H. A. Murray writes: "The essential function of a university is to promote intellectual activity, and since it is now evident that thinking is a function of the entire personality, rather than an isolated faculty, it is important to discover how and to what extent its advancement can be enhanced or blocked by other functions—feeling, sensuous perception, action. In every one of our subjects we found complexes that embarrassed learning and the zest of intellect. Is it not reasonable to suppose that teachers would be more realistically effective if they took account of such existences, if they had a better understanding of the young minds that they must interest and train? Though it is doubtful whether members of a college faculty can be expected to have the wisdom that many a student longs to find in them, and by imparting it nourish the whole being of man, it is only too clear that high intellectual capacity without feeling and sensibility can choke young life most grievously." (*Explorations in Personality*. New York: Oxford University Press, 1938. p. 740.)

person. In other words, its point of view is dynamic. Changes in the individual that are suitable to his stage of development and that demonstrate satisfactory movement in the direction of a full maturity are what it seeks. Again the influence of democratic convictions is evident, for democracy seeks to provide for the continuous self-realization of each member of the body politic. It also emphasizes self-reliance and self-direction. So does general education. Yet here again it is recognized that self-realization is inevitably a social phenomenon and that freedom is inextricably bound up with responsibility.

4. Emphasis upon Adjustment to Social Change

This recognition of social implications has also resulted in general education being influenced in the choice of its objectives by consideration of rapid social change. This has had three consequences. First is an effort to acquaint students with the world as it is today and not merely as it was five, ten, or twenty years ago. More important is the emphasis on the persistence of change. To understand the world today is not enough. It is more necessary to realize that it will be different tomorrow. This implies a recognition that it is useless to attempt to train students to deal specifically with situations of a definite sort, for the situations with which they must in future deal cannot now be completely anticipated. Consequently, general education tends to put an unusual and extraordinary stress upon the development of the power to see and to solve real and vital problems. The attainment of such power, along with the attainment of that emotional and mental flexibility that makes possible the meeting of new situations without undue strain and suffering, is among the most important objectives of general education. Thus, general education involves a fresh and realistic effort to aid young people in the achievement of usable powers of analysis and generalization. Such powers are the indispensable basis of intelligent action in a dynamic world. Modern leaders in general education have no quarrel, then, with the emphasis placed by an earlier generation of educators upon the importance of first principles. What they do demand is better methods of instruction that will result in a more genuinely effective grasp of widely ramifying generalized insights, a grasp that will guarantee their actual use in real life situations.

5. Emphasis upon Integration

The observant reader will have noted in all that has been said thus far a recurring attempt to avoid the dangers of sharp dividing lines.

There has been an emphasis on relationships existing between the needs and capacities of students, between the requirements and resources of society, between the individual and the society to which he belongs. It may be said, indeed, that perhaps the basic trend, so far as the objectives of general education are concerned, is to emphasize unities of various sorts. This is what accounts for the ubiquity of the word 'integration' in educational literature. This quest for integration manifests itself in a number of ways. Four may be particularly mentioned.

a. *Functional Integration of Subject Matter.* There is the trend towards a functional integration of subject matter, the bringing together from the conventionally established disciplines of that knowledge and those principles that jointly contribute to an illuminated understanding of problems of real personal-social significance. This tendency carries no implication that highly organized subject-matter courses are valueless. What it does mean is that there is a growing belief that such courses are often too exclusively concerned with piled-up, sometimes unrelated, details and with high-order abstractions, remote from the experience of the student; and that they breed, furthermore, an unfounded notion that knowledge can be divided into watertight compartments. The present aim of general education, which it may be granted is sometimes hardly achieved, is to emphasize and demonstrate the essential unity of knowledge. Experimentation with orientation, survey, and problems courses, as well as with comprehensive examinations, arises from this aim.

b. *Greater Unity of Purpose.* The second integrative trend is seen in the effort to attain a greater unity of purpose and practice within a given educational institution. In an increasing number of instances, the whole school is coming to be viewed as a sort of sub-society, the entire life of which has definite educational consequences. There follows from this tendency a desire for faculties to seek to work together more intelligently, for each member to try to see and to play his part in a unified educational situation. One consequence of this is the increasing amount of time being given by whole faculties to the formulation of specific educational objectives and the planning of well-rounded and carefully balanced programs of instruction. Another consequence is the steady decline in the practice of drawing a sharp line between 'curricular' and 'extra-curricular' activities.

c. *Integration through the Community.* A third integrative factor is represented by what may be called the decline of the 'ivory tower' as

a collegiate ideal. Figuratively speaking, the ivy-covered walls of college buildings may be said to be disintegrating, the fences that surround the campuses falling down. More and more institutions concerned with general education are sending their students out into the market places, into the legislatures, into the art studios, into the factories that produce power and goods of every sort, out to see the farms, the railroads and other agencies of communication. This is done so that life in the community may contribute more and more to student experience and provide a broad, realistic basis on which classroom theory may be erected. Similarly, through special visitors, and through such instruments as the radio and the motion picture, vital experiences are being increasingly provided on the campuses themselves. A cloistered experience may still be valuable at a certain stage of development for embryo scholars. But there is a growing conviction that even potential scholars, along with all other youth, should, through general education, receive a full-blooded sense of their integral membership in the community and in the greater society.

d. Integration of Individual Personality. Finally, and possibly most important of all, is the desire of general education to help each student in achieving a thorough integration of his own personality. The drives and hungers of his body; the pleasure and pain of his emotions about books, art, music, friends, family, teachers, money; his questionings as to the significance of being alive; his ethics; his sports, games, dances, and vicarious amusements; in fact, all the manifold lights and shadows, sounds and colors of his daily life in college must be pulled together and given meaning. Traditionally, we have set our consideration of the meaning of these things apart in watertight subject-matter compartments. We have taught courses in psychology, mental and physical hygiene, ethics, esthetics, art, music, and physical education. But these things were taught in formal courses, in different departments. Any integration that was done, the student had to do himself if he could. We thought we were teaching him to 'know himself,' but we taught him only parts and fragments, as if in teaching dress-design we were to discuss thoroughly the buttonhole, the sleeve, the collar, the hem, but never the whole garment. Social life, clubs and councils, all aspects of campus activity leading to personal-social integration we set apart as 'extra-curricular.' General education attempts to bring them together in all the patterns necessary to feed the growth of individual students towards maturity, towards the building in him and for him of a personally

satisfying and socially useful philosophy of life regarding himself and his world. Much is being done to bring the forces of faculty men and women in the various fields—college doctor, art teacher, coach, philosopher, guidance expert—together to work on this problem. Such evidence as is at present available gives promise that general education can immediately move fast and far in helping students toward more effective personal orientation and integration.

IV. TREND TOWARDS EXPERIMENTATION WITH VARIOUS PROCEDURES

Just as the objectives of general education tend to be determined in the light of our knowledge regarding conditioning circumstances, such as the nature and needs of adolescents and of society, so the procedures of general education tend to be chosen in the light of both. In determining the kind of total school or college environment that shall be provided for students, workers in general education must obviously be guided by their convictions regarding the changes in student behavior they desire to see occur. An inevitable consequence of new knowledge of adolescents, of new awareness of the social responsibilities of general education and the new objectives for it, has been experimentation with new processes.

It is not surprising to find these experiments very diverse. On the broad aims of general education considerable agreement obtains. As those aims are made more specific, however, differences of individual and institutional opinion and judgment begin to manifest themselves. And when it comes to a choice of procedures, these differences appear greater still. With respect, then, to the methods general education employs, the only trend that can be clearly discerned is toward experimentation. Nevertheless, there are certain procedures being so widely tried that they require description.

1. New Courses—The Surveys

First of all may be listed certain new types of courses. Most popular of these, hitherto, has probably been the so-called 'survey course.' In its least radical form the survey course differs from the ordinary course only in that it deals with a broader field of which it is a condensation. Sometimes it is hardly more than a loosely connected series of highly concentrated treatments of related subject matters, a sort of baling together of odds and ends of fragmentary courses. In other cases a greater degree of planned integration is achieved. Among the best ex-

amples are the survey courses offered in the two-year college at the University of Chicago. Here all knowledge has been divided into four parts—the biological sciences, physical sciences, the social sciences, and the humanities—and survey courses are offered that span each area. Some critics feel that surveys represent only a slight advance over the courses they replace. Sometimes, as a matter of fact, they appear to be more, rather than less, abstract, to have a slighter, rather than a greater, relation to student needs. And, because they cover so much material, they tend to put an impossible burden of reading upon most students. When these criticisms are least justified, the survey course is usually seen to have been functionalized. While still drawing its material from a wide area of subject matter, it does so not purely systematically, but rather in terms of problems that are felt to be vital by the students themselves. The aim here is not to cover the whole realm of knowledge at a gallop, but rather to demonstrate how elements drawn from several related disciplines may be illuminatingly combined and thus, at one and the same time, aid in meeting needs and in breeding a proper respect for the disciplines.

2. New Courses—Organized in Terms of Need

More radical are courses that depart more definitely from the subject-matter pattern and that are deliberately organized in terms of needs. These may exhibit either a personal or a social emphasis. Exemplifying the former are courses in personality and self-understanding; in choice of an occupation; appreciation and creation of art, music, and literature; development of hobbies; personal grooming, and selection and making of clothing; preparation for marriage, home-making, and the family; handling personal budgets; personal correspondence; speech improvement. Exemplifying the latter—courses with a social emphasis—are those dealing with contemporary economic and social problems and with the responsibilities of the citizen for dealing with those problems. Here are often considered questions of pressure groups and propaganda, of population, of marriage and divorce, of crime, of labor, of the distribution of wealth, of local and national politics, of international economic and political relations, of the conservation and utilization of natural resources, and the like. The focus may be on the local community or region, the nation, or the world. Such courses seek to awaken the student to a sense of personal responsibility for social improvement and to help him develop, particularly through

a study of history and the social sciences, skill in the analysis and solution of social problems.

3. New Courses—Integrated Patterns

Thus far, survey and functional courses have been spoken of in terms of isolated examples. More characteristic of general education, however, is the trend toward experimentation with patterns of such courses, patterns designed to constitute integrated programs and arranged in consideration of common needs. The employment of such patterns corresponds on the college level to the contemporary phenomenon in the high schools known as the 'core' curriculum. Perhaps the most radical of patterns and certainly one that has stirred an enormous amount of controversy is that supported by President Hutchins and now in practice at St. Johns College. Here the immediate focus is neither on subject matter nor on student needs, but rather on the great books of history, an assiduous study of which will, it is contended, best serve the ends of general education.

Before passing on to other considerations, it should be emphasized that leaders in general education do not contend that courses of the character just described should completely displace special subject-matter courses of the more traditional type. These must be retained for those who have specialized interests and needs or who are for other reasons ready for them. The same can be said of specialized vocational or semi-professional courses. Whether such courses should be interlarded with those that are more generalized, or whether they should be shoved up into the higher reaches of formal education is a question on which there is as yet no general agreement.

4. Emphasis on More Student Activity

A second important procedural trend in general education is that towards the encouragement of a greater amount of student activity. Here the educational philosophy which holds that we 'learn by doing' has been particularly influential. Increasingly, general education seeks to provide students with opportunities to take part in authentic experience. Again, this trend towards increased activism branches in two directions: first, the more or less intensely personal kind of experience, which may bear fruit in a more thoroughly integrated personality, and in a philosophy of life and point of view towards oneself and one's world, or in a widened, deepened, and more sensitive appreciation of

esthetic and ethical values; second, authentic social or group experiences that help a student adequately to adjust to the life of his local community and to wider civic life.

Some of the personal activities are relatively passive or vicarious in character. Here the superb and more or less dramatic lecture still plays its part in strongly stimulating youth to new insights and activities. Similar in effect are classroom demonstrations done by the teacher before the students, listening hours in music courses, classroom watching of motion pictures or lantern-slide projections, the use of radio to bring in political speeches and news events, and listening to teacher panel discussions. More and more emphasis, however, is being placed on direct activities, projects carried out by students for their own better learning. These include laboratory practices of new and vital kinds; the exploration and effective use of libraries; making things in shops; painting, modelling, etching, and weaving in studios; playing musical instruments, singing, and acting; participation in sports and games; field trips and tours into and beyond the immediate community. Sometimes, as at Antioch, at the Rochester Athenaeum and Mechanics Institute, and at many teachers colleges, more or less extended working apprenticeships are provided for. Or, as at Bennington, long 'vacations' are granted, during which students are expected to continue learning through practical and active experiences that, although acquired out of school, are school-guided.

Passive social participation may result from lectures, from visits to governmental agencies, social agencies, farms and factories, or from viewing documentary motion pictures that realistically display the actual work of farm, factory, or professional and personal service. Again, however, active social participation is being increasingly encouraged. Thus, the educational implication of student clubs, dramatics, orchestras, self-government, and other campus activities are more and more recognized. Some institutions concerned with general education are, in addition, encouraging students to participate more actively in social groups beyond the campus, to interest themselves in various political and social movements, to join party election campaign groups, to work in neighborhood houses, juvenile courts, or state offices, and by these and other means to find experience in playing their part in coöperation with others in efforts designed to bring about social improvements.

5. Individualization of Instruction and Program-Planning

A third procedural trend, though one not so clearly marked as those already considered, moves in the direction of individualization of instruction. This manifests itself in various ways. One evidence is the increasingly flexible use of library and community resources. Not only is there less reliance on textbooks as major materials of instruction, but also the listing of required 'readings' is in many cases being displaced by encouragement of individual and more or less independent searching of published materials. The new library at the Colorado State College of Education, for example, is being organized divisionally on the open-shelf principle, and a faculty member will be constantly present in each division to guide and help students in finding materials suited to their purposes. Stephens College has thoroughly experimented with departmental, dormitory, and club libraries. The increasing use of seminars and individual reports is also significant in this connection. So in many cases are the comprehensive examinations frequently established as a partial measure of the effectiveness of a general education program. Such examinations are commonly thought of as evidencing a concern with breadth. This they do, but they also frequently provide students with a wide choice among a considerable number of questions and may consequently be 'passed' by individuals who vary considerably in the types and details of their knowledge and understanding. The system of comprehensive examinations at the University of Chicago provides for another form of individualizing of interest and importance. Students are not required, before submitting to these examinations, to have taken any particular formal instruction, any set of courses, or to have spent any definite time since matriculation in preparation. In other words, the individual student may succeed in meeting the requirements of the college either rapidly or slowly, depending upon himself. This arrangement somewhat modifies the rigor of the prescribed pattern of general education at Chicago. Other institutions concerned with general education, however, have refused to establish any pattern common for all students. Sensitively aware of individual variations in ability, interest, background, and ambition, these institutions have chosen to rely on an improved system of guidance to see to it that each individual chooses a pattern of general educational experience suited to him.

The modern guidance movement is, indeed, of the greatest significance in connection with this trend towards individualization. Studying not only adolescents but also the adolescent, and not only society but

also the local community, it seeks to lead—not to order—each youth to submit himself to those educational experiences best calculated to meet both common and particular needs. In this way, it is believed that the dangers of the old 'free-elective system' may be avoided while the advantages are retained. It is not possible, then, nowadays to view 'prescription' and 'selection' as clear-cut opposites. Of course, we do not yet have a perfect basis for deciding exactly what sort of influences should be brought to bear on individual students in the interest of balance and well-roundedness. Presumably, excessively introverted students should be aided in becoming more social, and excessively extroverted students should be aided in becoming more personally sensitive. Some, however, would insist that effort of this sort should be very delicately carried on, especially in the case of adolescents who deviate markedly in one way or the other from the norm. The solution of this difficult problem can only be obtained through further careful study of the personal-social needs of adolescents.

In this connection what may be more properly described as a problem, rather than as a trend, requires mention—this is the question of the proper place of specialization in general education. On the whole, general education clearly represents a reaction against premature and immoderate specialization. Nevertheless, some who are concerned with problems of general education believe that students should be permitted during their high-school and junior-college periods freely to follow particular interests. Such interests may be vocational and preprofessional in character. This view has been brought out in earlier chapters of this yearbook. Some teachers colleges and other professional colleges believe, for example, that programs of general education should properly have a professional tinge. Bard and Bennington Colleges, of the experimental liberal arts group, evince the same conviction in their support of the 'trial' major plan. The view here represented is that a sharp distinction between special and general interests and needs is unrealistic, and that, as a matter of fact, if proper guidance is provided, an early focus on some special interest may make general education so much the more effective. This may be properly viewed as another evidence of the effort to attain integration.

6. Articulation of General Education with Other Experiences

A final procedural trend is that towards the attainment of better articulation of the general education program at the college level with

the experiences the student has had previously and is likely to have subsequently. The interest in the four-year junior college is one evidence of this trend, as is also the granting of pre-entrance credit on the evidence of uncommon attainment. The study of the personal needs of adults and of the prospective needs of our society, and the planning of general educational programs partly in the light of the results of such studies are also related phenomena.

V. TRENDS TOWARD A PROGRAM OF CONTINUOUS EVALUATION

One of the great weaknesses in education has been its undue readiness to assume that given procedures effectively attain given ends. Much of the argument about the value of various novel plans has been so highly speculative as to amount to little more than the expression of conflicting prejudice and unfounded opinion. In recent decades, however, educators have attempted to check their convictions by carefully measuring the outcomes and consequences of the procedures they have employed. This tendency is of enormous importance and may confidently be expected to continue. After all, the only ultimate justification for any educational procedure is that it does in fact bring desired results. It is increasingly evident that neither the maintenance of traditional processes nor new educational experimentation can longer be defended unless they are accompanied by most careful efforts to check and measure outcomes.

1. Development of Tests

The rapid growth of the educational testing and measuring movement since the War has contributed largely to the development of this point of view. Intelligence, diagnostic, achievement, attitude, interest, and, indeed, all sorts of objective tests have been produced in amazing profusion. Quantitative measurements and statistical manipulations have well nigh run riot. To be sure, the activities of the testers have sometimes been open to serious criticism. Their point of view has tended to be atomistic; that is, they have measured this and that with respect to a given student, often ignoring the whole configuration of personality. They have, moreover, been preoccupied with averages and norms, in consequence of which their work has often given the unwary the notion that everybody 'ought' to be up to a certain level of competence in everything or have the same attitudes or emotional reactions and interests. Those norms have, moreover, tended to reflect what is,

rather than what *might be* or *should be*. Achievement tests, for example, have frequently been constructed on the basis of most commonly used textbooks, with a resulting disadvantage for educators who were experimenting with fresh material, or whose objectives varied from those commonly held. Attention has also of necessity been focused on those attributes that yield most readily to measurement, with a resulting tendency in the direction of one-sided emphases. Finally, tests have commonly been constructed by experts without close coöperation with the teachers who were to use them, and there has been a resulting sense of the imposition of external standards. Yet it remains true that education owes, and will continue to owe, much to the measurement movement. Moreover, that movement is already responding to valid criticism.

2. Concept of Evaluation Replaces That of Measurement

It is, indeed, possible to speak of a broadening concept of evaluation. New instruments are being developed and employed that yield information regarding aspects of development hitherto insufficiently attended to—emotional and attitudinal change, for example. The quantitative fetish is subsiding and evaluation is now making use of qualitative information in an effort to achieve a full-bodied picture of each individual. The picture sought is, moreover, a moving picture, indicating the growth of the student through various periods of time.

Of particular significance is the tendency of evaluators to work more closely with the teachers themselves. This practice brings exceedingly important reactions. The technique, as it has been employed by the evaluation staff of the Progressive Education Association Commission on the Relations of School and College and at Minnesota's General College and elsewhere, may be briefly described as follows: Faculty members individually and in groups are asked to state their objectives as exactly as possible in terms of student behavior or changes in it. Since detailed specification is essential for the evaluator's purposes, this procedure has the desirable result of requiring each instructor to reëxamine carefully the purposes he has in view. Statements couched in vague generalities will not do. The next step is to try to ascertain what specific changes in student behavior might reasonably be considered to evidence growth in the direction of attainment of the specified objectives. Since such changes are seldom limited to the acquisition of new knowledge, this procedure also has a salutary broadening influence on the teacher. Finally, the evaluator, still working closely

with the teacher, and often attending his courses and reading the books used therein, evolves instruments of evaluation, administers them, and collaborates with the teacher in interpreting the results. The breadth, flexibility, and potential completeness of evaluation of this sort is patent. It is in close consonance with other dominant characteristics of general education, and, with improvements in techniques of evaluation and in the bringing about of coöperation by all concerned, great advantages are certain to result.

Related to this new type of evaluation is the renewed recognition that the ultimate test of the success of any program in general education is the personal and social competencies exhibited by students, both while in college and after their graduation from it. Thus, the problem of carry-over is seen to be an important one, and more and more institutions concerned with general education are seeking to follow their graduates' careers and to judge their own success according to the extent to which the graduates achieve personally satisfying and socially useful lives. Thus, the concern with evaluation brings us around the circle back to the problem of the satisfaction of personal-social needs with which this chapter began.

VI. TRENDS TOWARD ADMINISTRATIVE MODIFICATION

The trends discussed up to this point have had to do with educational purposes and with practices in the realms of guidance, instruction, and evaluation. Inevitably, however, developments in general education in colleges have also had their effects on administration.

1. New Administrative Units

The first trend is the emergence of new administrative units. The growth of the junior college as an extension of the high school, as a separate institution, or as a lower division within college or university has been in considerable part a response to the forces discussed in this Yearbook. Experimentation with the four-year junior college may be seen to be particularly consequent upon the impact of such influences. Even in four-year institutions that begin their work with high-school graduates a marked tendency to treat the first two years as a rather distinct unit has been observed. General education on the college level is coming to be thought of, indeed, as a characteristic function of these years and to demand for its full development separate administration, staff, and budget. This marks a definite trend.

2. Demand for Administrators with Broad Educational Vision

This development has placed new demands on administrative leadership. One of the consequences of the integrative impulse in education has been, as was earlier pointed out, a feeling that the policies and practices of any particular institution should exhibit a dynamic unity. This represents a reaction from the situation so common in recent decades in American colleges, in which individual departments, and sometimes individual professors, carried on their work with little or no concern for the way in which it fitted or might fit into some total program of education. Resentment was at times encountered if they were asked to serve as student counselors or members of coördinating committees. Some of them were inclined to look upon evaluation as spying. The new development in general education demands of administrators a much broader background, a wider view, a more fertile acquaintance with educational, scientific, and social forces, and with a higher degree of what might be called 'academic statesmanship.'

3. Selection of Staff for General Education

Of particular importance in this connection is the responsibility for staff selection. As the college's responsibility for general education, to youth and to society, comes to be viewed in all dimensions, it is becoming evident that faculty appointments must be made with consideration of other questions besides scholarly attainment, research, classroom skill, and frequent publication in the professional journals. Faculty members are needed who have broad interests in the whole problem of general education and who are able and willing to coöperate with their colleagues in studying their students and their local problems; to help establish objectives for the institution they are serving; to experiment to find superior procedures; and to coöperate with evaluators in checking the success of those experiments. Basic interest in young people and a sense of social responsibility become qualifications of the first order and complicate considerably for the administrator the already well-recognized problem of giving balanced regard to the virtues of the expert in research on the one hand and of the master teacher on the other. It is not being suggested, of course, that these qualities are necessarily unrelated. They are, however, to be found in various individuals in various admixtures. Moreover, contemporary patterns of graduate instruction with their major concern for the production of scholars ordinarily fail to encourage embryo college instructors in the develop-

ment of those valuable traits now thrown into relief in connection with problems of general education. Teachers for general education need themselves to be well-educated generally. A trend of demand on the part of administrators for individuals of this type is developing. This being true, it seems likely that a trend of supply will soon follow.

4. The Budget for General Education

A final administrative problem that is affected by the new interest in general education is that of the budget. The wise administrator must finally make a decision as to whether or not his institution will follow the new trend. If he decides that it must devote some of its resources to general education, he must find ways and means of distributing such plant, teaching, and financial resources as he may have to the development of guidance and of the curricular programs of general education, and to experiment and evaluation. He must also so distribute means as to further the refinement of the processes for training scholars, professional men, and other specialists. Experimentation, research, and a sharing of experience are definitely called for in administration in order that responsible officers may be aided in playing their solomonic rôle in this connection.

5. Demand for Creation, Not Imitation

With respect to one observable administrative trend, a warning should be issued. This is the trend towards imitation. The marked interest in general education now prevailing has made it inevitable that close attention should be paid to the 'plans' that have been adopted by various leading institutions. There is evidence of a consequent tendency on the part of other colleges somewhat uncritically to take over these various plans in whole or in part. The result is not good. Superior general education must always rise on local foundations. Colleges vary as to their clientele and as to the communities they serve. Their faculties differ in interest, conviction, and types of competence. It is desirable, of course, that the experimental activity of every college concerned with problems of general education should be widely studied, but no 'plan' is likely to work well unless ultimately it is indigenous. Principles may be adopted if they are thought through by local faculties to the point of being found to be thoroughly sound; practices and techniques may be studied and copied with all useful and needed modifications; but to pick up a whole 'plan' from one institution and clamp it down on

another never works. The trend towards imitation is, then, to be deplored, and should be replaced by a trend towards continuous study of all plans, of all experiments, accompanied by continuous consideration of local circumstances, continuous reformulation of local objectives, continuous experimentation with local procedures, and continuous evaluation of local outcomes.

VII. WHAT CAN COLLEGES DO IN THE LIGHT OF THESE TRENDS?

An individual college or staff, wanting to launch upon a new program of general education or to improve upon one already started, can profitably take the following steps:

1. Study the Work of Other Institutions

The purpose of this Yearbook is to make easier for colleges throughout the country the study of general education in numerous institutions.

In its pages, carefully ordered, are to be found authoritative statements from a representative sample of institutions concerned with general education, of philosophy, assumptions, objectives; descriptions of personnel and guidance service and research; outlines of curricular organizations in general education; comments on methods and practices in teaching; and plans and procedures for evaluation. Thus the Yearbook may serve as a guide to further exploration of the field, may suggest what institutions to visit, what programs to study, what references to read.

2. Study the Local Situation

The staff of a given institution may profitably study their own situation to determine the answers to such questions as these:

1. How extensive and effective is their personnel, counseling, and guidance work in revealing to them the nature and needs of the students they serve?⁴

2. How closely is the institution geared to its community and how aware is it of the impacts of that community upon it?

3. How interested and favorable is their administration to the development of a general-education program, and how might the budget be reallocated to build such a program?

4. How effective are its present processes of evaluation of educational outcomes, and how should these be modified, expanded, and improved if a general-education program is undertaken?

⁴At this point reference to "Guidance in Educational Institutions"—Part I of the *Thirty-Seventh Yearbook*, 1938, will be found useful.

5. How interested and favorable are the various members of the faculty who might best contribute to a program of general education, and how could interest be captured and developed?

3. Formulate a Program

Upon the basis of such scrutiny of local conditions and the work being done elsewhere the staff could formulate and state definitely: first, their assumptions concerning general education, the needs of the individual student, and the institutional outcomes desired from a program of general education; and second, the specific objectives and aims they would seek to accomplish in respect to guidance, curriculum, methods, administration, and evaluation.

4. Further Steps in Setting Up a Program

1. Continually restudy both the students and the community in the light of these assumptions and objectives.

2. Continually reexamine the present program of instruction in terms of stated assumptions and objectives and in terms of growing understanding of the needs of students and of the community in relation to these purposes.

3. Begin experimentation in the areas that seem most ready—where the personnel is most interested and most able.

4. Set up simultaneously with each experiment a process of evaluation that gives promise of showing how well they are accomplishing their stated aims.

VIII. CONCLUSIONS

This review of trends in general education should reinforce the opinion expressed in the introductory chapter of this Yearbook. The fundamental characteristic of general education, as it is now manifesting itself, is a quest for unity. Its focus of attention is upon those relationships that bind parts together to form a whole; relationships between the minds, bodies, and emotions of adolescents; between the various institutions of society, including education itself; between the individuals who, taken together, make up society; between the college and the community it represents; between the various disciplines that are our storehouses of accumulated knowledge; between the child that was, the adolescent that is, and the man that is to be; between the world of thought and the world of action; between the various

courses that constitute the curriculum; between the human beings who make up the college society; between specialized and generalized interests and needs; between the high school and the junior college; between the junior college and the senior college or the professional school or the non-academic world.

Yet the quest after unity does not imply any ideal of uniformity. One well-integrated personality is not identical with others, nor is one well-integrated society, nor one well-integrated college. It is the assumption of democracy that each individual is of unique worth, yet at the same time inextricably interinvolved with other individuals; that personal self-realization is inevitably a matter of social self-realization; and that reason is the supreme means for the choosing and the attaining of ends. The ideal democracy would exhibit a rich and vitalizing diversity, while at the same time constituting a perfect, total unity. In bringing this Yearbook to a close we may declare that general education as herein described is in aim and method entirely consonant with this democratic assumption.

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CONSTITUTION OF THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

(As Revised at the 1924 Meeting and Amended in 1926, 1928, 1929, 1932, and 1933)

Article I

Name. The name of this Society shall be "The National Society for the Study of Education."

Article II

Object. Its purposes are to carry on the investigation of educational problems, to publish the results, and to promote their discussion.

Article III

Membership. Section 1. There shall be two classes of members—active and honorary.

Section 2. Any person who is desirous of promoting the purposes of this Society is eligible to active membership and shall become such on payment of dues as prescribed.

Section 3. Active members shall be entitled to vote, to participate in discussion, and, under certain conditions, to hold office.

Section 4. Honorary members shall be entitled to all the privileges of active members, with the exception of voting and holding office, and shall be exempt from the payment of dues.

A person may be elected to honorary membership by vote of the Society on nomination by the Board of Directors.

Section 5. The names of the active and honorary members shall be printed in the Yearbook.

Section 6. The annual dues for active members shall be \$2.50. The election fee for active members shall be \$1.00.

Article IV

Officers. Section 1. The Officers of the Society shall be a Board of Directors, a Council, and a Secretary-Treasurer.

Section 2. The Board of Directors shall consist of six members of the Society and the Secretary-Treasurer. Only active members who have contributed to the Yearbooks shall be eligible to serve as directors, and no member who, under the provisions of Section 3, has been elected for two full terms in immediate succession shall be eligible to reelection to succeed himself for a third term.

Section 3. The Board of Directors shall be elected by the Society to serve for three years, beginning on March first after their election. Two members of the Board shall be elected annually (and such additional members as may be necessary to fill vacancies that may have arisen).

The discussion was participated in not only by the panel of speakers arranged by Dean Kefauver but also by numerous persons in the audience. Among the speakers were Dean Kefauver, Professor Harold Hand (Stanford University), Professor F. C. Rosecrance (Northwestern), Dr. C. G. Wrenn (University of Minnesota), Professor H. L. Caswell (Teachers College, Columbia), Professor Ruth Strang (Teachers College, Columbia), Professor A. C. Eurich (Northwestern), Dr. Richard Allen (Providence, R. I.), Professor Victor Noll (Rhode Island State College), Messrs. Dodd (Charleston, West Virginia), Dickey (Pittsburgh, Pennsylvania), White (Claymore, West Virginia), Ginn, and Miss Sturdevant.

SECOND SESSION—SATURDAY EVENING, FEBRUARY 26, 1938, 8:00 P M.

This session was devoted to a discussion of the *Thirty-Seventh Yearbook* of the Society, Part II, entitled, "The Scientific Movement in Education," prepared by a committee of the Society under the chairmanship of Professor Frank N. Freeman.

Guy M. Whipple, Secretary of the Society, presided. The program was carried out as follows, save that the address of Professor Dewey, who was unable to be present, was read by Chairman Freeman.

I. "Introducing the Yearbook."

FRANK N. FREEMAN, Professor of Educational Psychology, University of Chicago, Chicago, Illinois, and Chairman of the Society's Yearbook Committee.

II. "Educational Research in Perspective."

B R. BUCKINGHAM, Editorial Department, Ginn and Company, Boston, Massachusetts.

III. "The Use in Educational Administration of the Results of Science and Research."

DAVID E. WEGLEIN, Superintendent of Public Instruction, Department of Education, Baltimore, Maryland.

IV. "The Scientific Movement in Education Abroad."

PAUL MONROE, Director of the International Institute and Professor Emeritus of Education, Teachers College, Columbia University, New York, New York.

V. "The Relation of Science and Philosophy as the Basis of Education."

JOHN DEWEY, Professor Emeritus of Philosophy, Columbia University, New York, New York.

VI. Informal Discussion.

Open to members of the Society. (4 minutes each)

Opportunity for discussion from the floor brought out a rhetorical question from Professor W. H. Kilpatrick, and a question addressed to Professor Monroe by Superintendent Graves, of Wellesley, Massachusetts.

BUSINESS MEETING

Directly after the second session of the Society a business meeting of the Society was called at which Director Horn presided. The Secretary presented as the sole item of business the recommendation of the Board of Directors that the Society authorize the Board to prepare a suitable statement concerning the services to the Society of the late Dean Melvin E. Haggerty, to spread this statement on the minutes of the Society, to transmit a copy of it to Mrs. Haggerty, and to take such other steps as the Board might deem wise to arrange for its

publication. Director Horn spoke briefly of the part that Dean Haggerty had played in the activities of the Society.

The recommendation of the Board was adopted unanimously by a rising vote. [The statement prepared by the Board of Directors, which was published in the *Journal of Educational Research*, is presented on the page that follows these minutes.]

GUY M WHIPPLE, *Secretary*.

Melvin E. Haggerty

In the death of Dr. Melvin E. Haggerty, of the University of Minnesota, on October 7, 1937, the National Society for the Study of Education has suffered a real loss

Dr. Haggerty became an active member of the Society twenty years ago. In 1917 he contributed to the Society's yearbook on *The Measurement of Educational Products*, and in 1933, to that on *The Activity Movement*. At the time of his death he was serving as Chairman of the Society's Committee on Art Education, an undertaking in which he was peculiarly interested and in the development of which he was uncommonly enthusiastic. At the annual meetings of the Society he participated as a speaker frequently and always effectively.

His outstanding service to the Society was made as a member of its Board of Directors. To this Board he was elected for two successive terms, from 1931 to 1937, and of this Board he was the unanimous choice as Chairman for five years in succession, 1932-1937. To his work as Chairman of the Board, Dr. Haggerty brought a rich and varied professional experience—his graduate training at Indiana and Harvard, his teaching at Harvard, Indiana, Minnesota, his administrative and research activities as Dean of the College of Education, at Minnesota, as Major in charge of the Re-education of Disabled Soldiers, as Director of Tests and Measurements in the Virginia Educational Commission, as President, for various periods, of the Minnesota Chapters of Sigma Xi and Phi Beta Kappa, of the American Educational Research Association, and of the National Society of College Teachers of Education, and as a member of the Executive Committee of the North Central Association of Colleges and Secondary Schools, not to mention his editorial activities on various professional magazines and numerous other forms of educational enterprise. Along with this extensive experience and familiarity with affairs in the educational world, Dr. Haggerty brought to his work as Chairman of the Society's Board of Directors certain conspicuous personal qualities, notably a superior general intelligence, a valuable shrewdness in the appraisal of the qualifications of workers in the field of education, a poise and equanimity that carried his thinking to freedom from undue prejudice, and a high degree of energy and persistence in carrying out enterprises that won his support.

The Society was truly fortunate to enlist Dr. Haggerty's services, and his departure deprives it of a support that will be most difficult to replace.

For the Board of Directors,
GUY M. WHIPPLE, *Secretary*.

SYNOPSIS OF THE PROCEEDINGS OF THE BOARD OF DIRECTORS OF THE SOCIETY DURING 1938

This synopsis, indicating matters of importance only that have been considered by the Board of Directors, is presented in order that the members of the Society may be informed concerning the acts and policies of those who are directing the work of the Society.

ATLANTIC CITY MEETING OF THE BOARD OF DIRECTORS

Atlantic City, New Jersey: Hotel Madison, February 26, 1938.

Present: Directors Brueckner, Freeman, Horn, Trabue, Tyler, Uhl, and Whipple; also by invitation, Director-elect Goodykoontz, and for short periods Professor Alvin C. Eurich and Mr. Ralph Bridgman.

1. The Secretary reported that, as a result of the balloting in December, 1937, Professor Leo J. Brueckner, who had served one year *vice* Counts resigned, and Dr. Bess Goodykoontz had been elected to the Board for a term of three years, beginning March 1, 1938.

2. There was general discussion of plans for increasing the membership of the Society, with emphasis upon the value of personal solicitation.

3. The Secretary reported that the projected yearbook on the Social Studies, originally proposed by Professors Wesley and Wilson, had been formally withdrawn by its sponsors.

4. There were added to the Society's Committee on Intelligence, operating under the chairmanship of Dean Stoddard, the names of Professor Leonard Carmichael, of the University of Rochester (President-elect of Tufts College) and Professor Leta Hollingworth, of Columbia University.

5. The chairmanship of the Society's Committee on Art Education, left vacant by the death of Dean Haggerty, was offered to Thomas Munro, Curator of Education of the Cleveland Museum of Art, and was accepted by him. Professor Robert S. Hilpert, of the University of Minnesota, was added to this Committee.

6. Following a discussion of the cost of the current yearbooks (approximately \$6000 for 4000 to 6000 copies of each part), the Board recommended that the Editor enforce strictly the regulation whereby author's alterations exceeding 15 percent of the cost of composition should be assessed upon the contributor.

7. The Treasurer reported upon changes in the list of the Society's securities, and also upon the appropriations and expenditures of the Society's yearbook committees. On the basis of these and other figures the budget for 1938 was determined.

8. Director Tyler reported on the aspects of the Indianapolis meeting of the Council of the A. A. A. S. that were of interest to the Society.

9. Director Freeman was reelected Chairman of the Board, beginning March 1, 1938.

10. Director Whipple was reappointed as Secretary-Treasurer and Yearbook Editor for three years, beginning March 1, 1938

11. Directors Trabue and Tyler were appointed as representatives of the Society on the Council of the A.A.A.S at its 1938 meeting, with Dean George Stoddard as alternate.

12. Mr. Ralph P. Bridgman, Executive Director of the National Council of Parent Education, submitted a typewritten proposal for a yearbook to be sponsored by the Society that would bring down to date the status of home and family education. Mr. Bridgman discussed this proposal with the Board for some thirty minutes. [Later in the year Mr. Bridgman withdrew his proposal for the time being.]

13 Professor Alvin C. Eurich, then of Northwestern University, presented in person a tentative outline for a yearbook on "General Education in the American College." After careful consideration, the Board authorized Professor Eurich to serve as chairman of such a yearbook committee and endorsed the names proposed for a nuclear committee, to which additions could be made subsequently. The Board appropriated \$1,200.00 for the preparation of this yearbook. [The present volume is the result of this Committee's work.]

The Board proposes to give consideration to the preparation of a similar yearbook dealing with the field of secondary education.

14. The proposal set forth by Director Freeman that the Society should contribute a substantial sum toward the publication through the Macmillan Company of a *Cyclopedia of Education* was acted upon adversely by the Board on a number of counts.

15. The program of publication, so far as could be foreseen at the time, was as follows:

1939: Superintendent Washburne's Yearbook on "Child Development," Part I

Professor Eurich's Yearbook on "General Education in the American College," Part II

1940: Dean Stoddard's Yearbook on "Intelligence: Nature and Nurture," Parts I and II

1941: Dr. Munro's Yearbook on "Art Education," Parts I and II

1942: No commitments

16. The Board authorized the calling of a business meeting of the Society for the purpose of taking appropriate action concerning the death of Dean Haggerty. [See the preceding Minutes of the Atlantic City meeting and the statement following the Minutes.]

GUY M. WHIPPLE, *Secretary.*

REPORT OF THE TREASURER OF THE SOCIETY

Condensed Statement of Receipts and Expenditures for the Year July 1, 1937-June 30, 1938

Balance on Hand, July 1, 1937..... \$23,429 74

RECEIPTS

From Sale of Yearbooks\$11,784 74
From Fees for Quotations..... 45 00
From Dues 3,372 08

From Securities:

Interest on Bonds\$505 65
Interest on Deposits..... 228.46
Exchange of Securities..... 292.24

1,026 35

Total Receipts for the Year..... 16,228.17

Total Receipts, including Initial Balance \$39,657.91

EXPENDITURES

Yearbooks

For Manufacturing and Distribution.....\$10,650.18
For Preparation by Committees..... 3,009.05
For Reprinting 1,337.85

Total Expended for Yearbooks..... \$14,997 08

Meetings

For Board and Society Meetings..... 412.52

Office of Secretary-Treasurer

For Editorial, Secretarial, and Clerical Work.....\$ 2,766.50
For Rent, Supplies, Insurance, Equipment, Refunds, etc..... 538 26

Total Expended for Office of Secretary-Treasurer..... 3,304.76

Securities

For Interest Bought, Cost of Exchanging Securities, etc..... 237.40

Total Expenditures for the Year..... \$18,951.76

Balance on Hand, June 30, 1938..... 20,706 15

Total Expenditures and Closing Balance..... \$39,657.91

REPORT OF THE TREASURER OF THE SOCIETY

ANALYSIS OF BALANCE ON HAND, JUNE 30, 1938

Checking Account, National Grand Bank.....	\$ 1,578 88
Savings Account, Danvers Savings Bank.....	2,771 78
Savings Account, Salem Five-Cent Savings Bank	3,588 28
Savings Account, Marblehead Savings Bank.....	2,263.80
Securities (ten bonds, 25 shares stock) Face Value \$10,472, at Cost.....	10,503.41
	<hr/>
Balance, June 30, 1938.....	\$20,706 15

GUY M WHIPPLE, *Treasurer*

MEMBERS OF THE NATIONAL SOCIETY FOR THE STUDY OF EDUCATION

(This list includes all persons enrolled Dec. 31, 1938, whether for
1938 or 1939)

HONORARY MEMBERS

Dewey, Emeritus Professor John, Columbia University, New York, N. Y.
Hanus, Professor Paul H., Harvard University, Cambridge, Mass.
Holmes, Manfred J., Illinois State Normal University, Normal, Ill.

ACTIVE MEMBERS

Abelson, Dr. Harold H., College of the City of New York, New York, N. Y.
Abernethy, Professor Ethel M., Queens College, Charlotte, N. C.
Achariu, K. S., Head Master, District Normal School, Tumkur, Mysore, India.
Adams, Miss Ruby M., Director of Elementary Education, Schenectady, N. Y.
Adams, Mrs. W. R., University of Vermont, Burlington, Vt.
Aitken, E. S., Supervisor, Rapides Parish Schools, Alexandria, La.
Alderfer, C. J., 1225 W. Main Street, Smethport, Penn.
Alexander, Professor Carter, Teachers College, Columbia Univ., New York, N. Y.
Alger, John L., President, Rhode Island College of Education, Providence, R. I.
Alleman, S. A., Superintendent of Schools, Napoleonville, La.
Allen, C. F., School Administration Building, Little Rock, Ark.
Allen, Miss Clara B., 145 East Maple Ave., Ottumwa, Iowa.
Allen, I. M., Superintendent of Schools, Highland Park, Mich.
Allen, Richard D., Dir., R. I. Inst. Counseling & Personnel Service, Providence, R. I.
Allman, H. B., Superintendent of Schools, Muncie, Ind.
Alter, Harvey E., 100 Ft. Stanwix Park, Rome, N. Y.
Andersen, C. T., Assistant Director of Research, Public Schools, Detroit, Mich.
Andersen, Erik A., Deputy Superintendent of Schools, Providence, R. I.
Anderson, Harold A., School of Education, University of Chicago, Chicago, Ill.
Anderson, Homer W., Superintendent of Schools, Omaha, Neb.
Anderson, Professor Howard R., Grad. School of Educ., Cornell Univ., Ithaca, N. Y.
Anderson, John E., Dir., Inst. Child Welfare, Univ. of Minn., Minneapolis, Minn.
Anderson, Miss Marion, Ginn and Company, Boston, Mass.
Anderson, Professor Roy N., Teachers College, Columbia Univ., New York, N. Y.
Andrews, Miss Elizabeth M., Prin., Bancroft School, Washington, D. C.
Andrews, H. L., Superintendent of Schools, Hoytville, Ohio.
Andrus, Dr. Ruth, State Department of Education, Albany, N. Y.
Ansbaugh, G. E., Principal, Bryant School, Chicago, Ill.
Archer, Professor C. P., University of Minnesota, Minneapolis, Minn.
Armstrong, Miss Sara M., State Normal School, Framingham Centre, Mass.
Asgis, Dr. Alfred J., 33 West 42nd St., New York, N. Y.
Ashbaugh, Professor E. J., Miami University, Oxford, Ohio.
Atkins, Miss Helen L., Dean of Girls, Manual Training H. S., Denver, Colo.

Atkins, Dr. Ruth E., 217 Normal Avenue, Normal, Ill.
Atkinson, F. H., Henry Ford School, Highland Park, Mich.
Augustin, Miss Eloise D., "The Maples," Otsego Co., Laurens, N. Y.
Avery, F. B., 197 East Post Rd., White Plains, N. Y.
Avery, George T., State Agricultural College, Fort Collins, Colo.
Ayer, Miss Jean Y., 1 Bank Street, New York, N. Y.

Babcock, E. H., Superintendent of Schools, Grand Haven, Mich.
Babcock, George T., 182 Second St., San Francisco, Calif.
Backus, Professor Joyce, State College, San Jose, Calif.
Bacon, Francis L., Principal, Evanston Township High School, Evanston, Ill.
Bader, Miss Edith M., Assistant Superintendent, Ann Arbor, Mich.
Bagley, Professor William C., Teachers College, Columbia Univ., New York, N. Y.
Bailey, Francis L., 99½ College Street, Montpelier, Vermont.
Baker, C. A., Dean of Normal School, Rio Baptist College, Rio de Janeiro, Brazil
Baker, Miss Edith M., Acting Librarian, Clark University, Worcester, Mass.
Baker, Miss Edna Dean, Pres., National College of Education, Evanston, Ill.
Baker, Harold V., Prin., Daniel Webster School, New Rochelle, N. Y.
Baker, Dr. Harry J., Director, Psychological Clinic, Public Schools, Detroit, Mich.
Baker, Ira Y., County Superintendent, Court House, Gettysburg, Penn.
Ballou, Frank W., Superintendent of Schools, Washington, D. C.
Ballou, Richard Boyd, Smith College, Northampton, Mass.
Balyeat, Professor F. A., University of Oklahoma, Norman, Okla.
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School warrants and vouchers from institutions must be accompanied by definite information concerning the name and address of the person for whom membership fee is being paid. Statements of dues are rendered on our own form only. The Secretary's office cannot undertake to fill out special invoice forms of any sort or to affix notary's affidavit to statements or receipts.

Cancelled checks serve as receipts. Members desiring an additional receipt must enclose a stamped and addressed envelope therefor.

7. **DISTRIBUTION OF YEARBOOKS TO MEMBERS.** The yearbooks, ready prior to each February meeting, will be mailed from the office of the publishers, only to members whose dues for that year have been paid. Members who desire yearbooks prior to the current year must purchase them directly from the publishers (see Item 8).

8. **COMMERCIAL SALES.** The distribution of all yearbooks prior to the current year, and also of those of the current year not regularly mailed to members in exchange for their dues, is in the hands of the publishers, not of the Secretary. For such commercial sales, communicate directly with the Public School Publishing Company, Bloomington, Illinois, which will gladly send a price list covering all the publications of this Society and of its predecessor, the National Herbart Society. This list is also printed in the yearbook.

9. **YEARBOOKS.** The yearbooks are issued about one month before the February meeting. They comprise from 600 to 800 pages annually. Unusual effort has been made to make them, on the one hand, of immediate practical value, and on the other hand, representative of sound scholarship and scientific investigation. Many of them are the fruit of coöperative work by committees of the Society.

10. **MEETINGS.** The annual meeting, at which the yearbooks are discussed, is held in February at the same time and place as the meeting of the American Association of School Administrators, of the National Education Association.

Applications for membership will be handled promptly at any time on receipt of name and address, together with check for \$3.50 (or \$3.00 for reinstatement). Generally speaking, applications entitle the new member to the yearbook slated for discussion during the calendar year the application is made, but those received in December are regarded as pertaining to the next calendar year.

Box 822, Clifton, Mass.

GUY M. WHIPPLE, Secretary-Treasurer.

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